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# THE AMERICAN MEDICAL DIGEST.

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*A DIGEST OF CURRENT MEDICAL LITERATURE,  
ABSTRACTS AND REVIEWS,—IN THREE PARTS:  
MEDICINE, SURGERY, DISEASES OF  
WOMEN AND CHILDREN,  
AND OBSTETRICS.*

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# THE AMERICAN MEDICAL DIGEST.

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1888.

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## MEDICINE.

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### CONSTITUTIONAL DISEASES.

#### Treatment of Fevers.

DR. B. F. WESTBROOK in an article published in the *N. Y. Medical Journal*, December 7, 1887, makes the following statement in regard to treatment :

In regard to hygienic management I will content myself with a few observations on the subject of diet. First, water : The thirst by which fever patients are tormented represents undoubtedly an actual need of the body for more fluid, though it is no doubt intensified and rendered abnormally great by the dryness of the mouth, stomach and intestines. It should be our aim, therefore, to administer sufficient to supply the actual need of the organism without entirely yielding to the voracious demands of the sufferer, as an excessive imbibition of water is apt to disturb the stomach and produce emesis and to take away the appetite for more strictly nourishing substances. The nurse should be instructed to give water in small quantities in the intervals between the administration of other foods, and this whether the patient

requests it or not. The latter rule is imperative in instances presenting the typhoid condition, because the obtundity of the senses is so great that such persons frequently fail to recognize their own wants. Care should be taken that the water given is pure, and for this reason it is better not to use the ordinary ice-water, as the presence of bacteria and other spores in the ice delivered at our houses is quite constant, as shown by Dr. Prudden ; and the abnormal condition of the stomach might favor their development and the accompanying fermentations and decompositions. If ice-water is needed it is better to fill bottles from the hydrant and put them on the ice. When vomiting is present, and it is thought well to give cracked ice, it would undoubtedly be best, where practicable, to have pure water frozen for the purpose on the premises. The addition of acids to the water would to a great extent overcome this difficulty. It has been suggested by Dr. Austin Flint, in his able paper on the "Pathology and Treatment of Fever," read before the Ninth International Medical Congress, that in febrile conditions there

is an actual diminution of the production of water by combustion in the body. This, if true, would furnish an additional and very important reason for its free administration. It is not, however, as far as I know, demonstrated that there is such a failure. It would seem, from the result of physiological experiments performed by himself and Dr. John C. Draper, that during health, and particularly during short periods of fasting, water is one of the results of the oxidative processes. But whether diminished excretion of water in fever is to be taken as a sign of its diminished production, or simply indicates that it is retained in the body, is not proved. My impression is that Dr. Flint underestimates the amount of water given off by the bodies of febrile patients. It is true that the quantity of urine and perceptible perspiration, as well as the glandular secretions, are diminished, but this is to some extent compensated by the increased insensible transpiration from the skin, as demonstrated by Leyden, and by the greater frequency of breathing. Moreover, this diminution of the watery excretions is largely limited to the early days of the fever. In typhoid, for instance, in the second week, the urine generally increases in quantity and diminishes in specific gravity, while sweating is much more pronounced than during the pyrogenetic stage.

The other articles of diet should be given in fluid form, and it is the opinion of all writers upon the subject—and I believe of the profession generally—that they should be largely nitrogenous in their composition. Cases occur, however, in which bland, starchy substances, such as rice, arrow-root, barley-water, etc., agree very well. Dr. Flint thinks that it may be advisable to administer these hydrocarbonaceous substances

more freely than has hitherto been the custom. He bases his argument for their use on their well-known efficacy in maintaining the temperature of the body during exposure to excessive cold. He thinks that the demand for the production of heat causes such a destruction of the hydrocarbons of the body—viz., the adipose tissue—that their free administration might, to some extent, do away with this loss. The objections to their use have been based upon the inability of the febrile stomach and intestines to properly digest them, owing to the diminished secretion of the salivary, pancreatic, and intestinal juices. If this can be overcome, Dr. Flint's suggestion may prove to be a very valuable one. In health, the generation of heat occurs principally in the muscles, and this probably holds true also in fever, where an abnormally intense process of some kind is going on in the muscular substance. This pathological process is shown by the extensive degeneration which is found post mortem, though these changes differ somewhat in different diseases, and those found in fever are not the same as have been found by Litten and others in animals whose temperature has been simply raised by preventing a discharge of heat from the body. In the latter have been found extensive fatty degeneration, while in the former this change, if it occurs, is preceded by a granular albuminoid degeneration, or by an amyloid transformation. In order, however, to supply material for the carrying on of these processes in the muscles, the adipose tissue of the body is drawn upon very largely, and it is quite possible that the introduction of hydrocarbonaceous articles with the food might save the fatty tissues from such a rapid disintegration. At any rate, the experiment is well worthy of

trial. The administration of nitrogenous substances is, however, of primary importance, as they will undoubtedly assist in recuperating the rapidly disorganizing muscles. Here, too, the question of assimilation comes up. When the toxæmia is intense, and its malign influence is exerted upon the glandular and digestive apparatus, even the simplest foods cannot be digested and assimilated. It then becomes necessary to avail ourselves of the assistance which science has recently rendered us in this emergency, and procure an artificial digestion of the aliments before they are introduced into the body. Armed with the means which we now have to overcome this difficulty, we are in far better condition than ever before to combat the inanition which always threatens those who are affected by long continued or intense fever. I have no doubt that, by a systematic use of peptonized foods, the mortality from these diseases and especially from enteric fever, may be very considerably diminished. As an illustration of their value, I may mention a case of a physician affected with typhoid fever which ran for six weeks, with an evening temperature, for two or three weeks, of about 104° F., with only moderate morning remissions. The tongue remained moist and almost entirely clean throughout the entire course of the disease. This gentleman, for four or five weeks, took no other nourishment than peptonized milk. Though this is an exceptionally favorable instance, still I believe that such a result may frequently be approximated if the patient can be induced to adhere to the diet.

The question of the administration of alcohol in fever is also an important one, and may be appropriately discussed at this point, because of its occupying a position midway between food and

medicine. When fevers assume the sthenic type, or when they run a mild and uncomplicated course, the administration of alcohol is not only unnecessary, but frequently inadmissible. It is also, I believe, a mistake to administer stimulants from the beginning of the attack in the hope of averting unfavorable consequences.

In order to obtain the best results from its use, it should be prescribed in the same way as any other medicine, in definite doses given at stated intervals, very little reliance being placed upon the judgment of the attendants. It is not easy to say whether, under these circumstances, alcohol is or is not of value as a food. There are, however, some physiological and clinical facts which would seem to indicate that it is. Professor Flint, arguing from the standpoint of the physiologists, claims that it, like other hydrocarbons, is oxidized in the body with the production of force. It is also a matter of common observation that in typhoid conditions generally large quantities of alcohol may be taken into the body without their giving rise to any characteristic odor in the breath, and it is one of the old rules of practice that, as soon as this odor is discovered, the dose should be diminished. It has been suggested by some that alcohol may have an antipyretic effect, but this is, to say the least, questionable.

In the further treatment of fever regard should be had to the nature of the infection, the pyrexia, and the condition of the special systems. In the typical septic fevers—such as pyæmia, septicæmia, and some of the puerperal diseases—the very free administration of alcohol has, according to the testimony of all observers, more or less of a specific curative influence.

The antipyretic treatment may be carried out either by the action of cold

upon the surface of the body, or by the exhibition of some of the drugs which are known to have this peculiar effect when given internally. The direct abstraction of heat—a method of which I have little personal experience—seems to be best accomplished by the use of the graduated bath of von Ziemssen. The patient is immersed in the bath at a temperature of about  $90^{\circ}$  to  $95^{\circ}$  F.; this is gradually cooled, by the addition of cold water or lumps of ice to  $70^{\circ}$  or  $68^{\circ}$ .

It is also not improbable that the benefits to be derived from cold bathing, even aside from the reduction of temperature, have been overstated by Liebermeister and others. Eichhorst, who recommends the practice in typhoid fever, makes the moderate statement that an improved condition of the nervous system not infrequently follows the use of the cold baths, and Struempell also is very guarded in his recommendation of them. It has further been ascertained by Senator, by a comparison of the statistics of the different hospitals of Berlin, that in the Augusta hospital, where the antipyretic treatment has not been used, the percentage of recoveries from typhoid fever is greater than in those institutions in which this method has been employed. It is probable that, with the more extensive use of the recently discovered antipyretic drugs, antipyrine and antifebrine, the cold baths will gradually fall into disuse.

An additional advantage which these drugs have over the direct abstraction of heat by means of cold water is that they cause an actual diminution of the production of heat in the body, whereas the cold bath exerts no such influence. It is stated by Niemeyer, as the result of experiments by Liebermeister, that the production of heat is actually increased by the use of

the cold bath. But even if there were no actual increase, but the production simply remained the same, while the temperature was lowered by the more rapid abstraction of heat, antipyrine and antifebrine would still be more useful. The other antipyretics, namely, quinine, aconite, and digitalis, are not so useful on account of their depressing qualities, and they will probably be entirely replaced in the future by antipyrine and antifebrine.

These drugs may be employed either by the stomach, rectum, or subcutaneous injection, without annoyance to the patient, or the necessity of so many trained assistants, and with just as favorable if not more favorable results. If deemed advisable, it is possible, by their use in moderate and regularly repeated doses, to retain the temperature at almost any point deemed advisable. Whether, however, this is necessary in ordinary cases is doubtful. Many cases of typhoid and other infectious fevers run their course with moderately high temperatures, but with no very alarming symptoms, and many of the worst cases particularly of the septicæmic conditions and also of typhoid, show no hyperpyrexia from beginning to end. Indeed, it would seem that a certain increase in the temperature of the body is a part of the normal course of a febrile disease, and that, unless it reaches a hyperpyrexial degree, it may be safely let alone. If, however, the temperature rises above  $105^{\circ}$ , it becomes dangerous, and in that case it must, if possible, be controlled by antipyretic remedies. The point which I wish to make in regard to the antipyretic treatment is that it should not be too hastily adopted, that the physician should not allow his attention to be too exclusively occupied by this one symptom to the neglect of others which are in many, if not in the majority



of cases, more important, and that the great majority of cases of fever will run their course favorably without any antipyretic treatment whatever. The attention of the physician should be especially occupied in watching the development of collateral symptoms, which should be combated, where they require it, according to the well-recognized rules of therapeutics. He should always bear in mind that there is more danger of over-treating than of under-treating the patient.

Where we are unable to apply specific remedies, our object should be, first of all, to attend to the general nutrition of the body; second, to maintain the strength of the patient by stimulants where food is inadequate to this end; third, combating unfavorable symptoms in the nervous and vascular systems; and, lastly, to the artificial reduction of the temperature, if this should attain a dangerous height.

The treatment of the symptoms connected with the nervous system will vary according as their type is sthenic or asthenic.

The headache, restlessness, and more or less active delirium observed in the course of the more sthenic fevers, and at certain stages of those of the asthenic variety, are best controlled by agents which act as sedatives upon the nerve centres without diminishing the secretions. These are the bromides, chloral, urethane, and paraldehyde. In mild cases the bromides, particularly at night, are sufficient. Where the restlessness is more pronounced, and insomnia is a marked symptom, chloral in moderate doses is beneficial. In the administration of this drug the best results are obtained by giving two or three moderate doses—say ten grains to an adult at intervals of two hours, beginning early in the evening. By this plan we avoid

any danger of too great a depressing effect upon the heart, and secure a gradual and somewhat cumulative soporific effect. When it is not thought safe to use chloral, and we desire a purely hypnotic effect, paraldehyde, in doses of from one to two drachms, or urethane, thirty to forty grains, may be given with safety, and with almost absolute certainty of obtaining a beneficial result. In the low delirium and vigilance of the asthenic fevers the best sedative is opium, and the best form of administration is that of a pill. The ordinary dose is from half a grain to a grain every three or four hours. This may usually be omitted for a few hours in the early part of the day, when the tendency to delirium is least marked, and resumed in the afternoon. It may be advantageously combined with quinine, camphor, or the mono-bromide of camphor. When the mucous membranes and skin are very dry and harsh, I believe it to be advisable to combine small doses of calomel with the opium. This is a plan of treatment recommended by Dr. George B. Wood, and, though I would not carry it as far as he did—that is, to the point of slight salivation—still I believe that its moderate use is often followed by very salutary effects. This treatment should not, however, should not replace the free and regular exhibition of alcohol. In instances where the delirium is maniacal, and it is important to quiet the patient quickly, subcutaneous injection of morphine should be resorted to, but only as a temporary expedient. In addition to these measures, it may be well, when the delirium is active, to apply cold to the head.

Circulatory disturbances are also to be treated according to their active or adynamic character. When the pulse is rapid, strong, and resistant, the heart's action forcible, and its sounds clear and

distinct, it may be well, even if this occur in the early stages of fevers of the typhoid type, to use some arterial sedative. Frequently the agents used for the control of the nervous condition will also affect this. If any other drug is employed, it should be one as little depressing as possible. Probably the best of the arterial sedatives for use in such cases is *veratrum viride*. While this drug exerts a potent effect in lowering vascular pressure, it is known to be almost free from danger. Its effects are not of long duration, and it appears to produce no lasting debility. For these reasons it is much better adapted to the treatment of the early stages of typhoid fever than *aconite*, the use of which can not but be fraught with more or less danger, inasmuch as we can not know at what time the disease will assume the asthenic type. In doses of three or four minims of the fluid extract, at intervals of two or three hours, *veratrum viride* is, I believe, a perfectly safe arterial sedative.

When the heart begins to flag, and the pulse becomes soft and non-resistant, the alcohol and opium, which are usually demanded for the relief of other symptoms, will be sufficient for this. If, however, some re-enforcement of the treatment be necessary, the best agent that we have at our command is the oil of turpentine. This can be given in three-to-five minim doses, either in a capsule with the opium, or by itself in an emulsion. Its disagreeable taste may be overcome by the addition to the mixture of a few drops of the oil of gaultheria. In typhoid fever turpentine is also useful for its direct effect upon the intestinal mucous membrane. Attention was first drawn to this fact by Dr. George B. Wood, and its value has been attested by many experienced practitioners since his day. The dry-

ness and heat of the skin of fever patients are most pleasantly relieved by sponging the surface with cool water, to which alcohol, bay rum, or Florida water may be added. When, on the contrary, there is profuse sweating, acetic acid or vinegar may be added to the water, and, if this be not sufficient, a grain of the oxide of zinc, with a twelfth or eighth of a grain of the extract of belladonna, may be given in a pill every three hours. When pulmonary complications present themselves in the form of asthenic bronchitis or pneumonia they call for an increase in the amount of stimulants, and usually for the exhibition of some stimulating expectorant. It is not necessary for the purpose to introduce any other agent than those already mentioned, as there is nothing more useful in these cases than alcohol, quinine, and the oil of turpentine. Carbonate of ammonia may be of use, but, I think, is not as desirable as the drugs above alluded to.

When in the course of the infectious fevers there is a marked diminution in the quantity of urine, with the appearance of albumin or of the morphological elements which indicate the existence of nephritis, the treatment will depend upon the character of the collateral symptoms. Should there be no marked evidences of uræmic poisoning, it may be best not to adopt any special medication. If, however, the signs of uræmia are well marked, we should give a mild hydragogue cathartic, and, if this is not sufficient, should endeavor to induce copious perspiration. This can be best done by the hypodermic injection of from one-eighth to one-sixth of a grain of the nitrate or muriate of pilocarpine. This may be preceded by the use of the cold pack, and should be accompanied by an increase in the amount of alcoholic stimulants.



### An Emulsion of Cod-Liver Oil.

THE British Pharmaceutical Conference's "Formulary of Unofficial Remedies" (*Brit. and Colon. Druggist*) gives the following formula: Cod-liver oil, 40 fl. oz.; powdered tragacanth, 200 grs.; tincture of benzoin, spirit of chloroform, glycerin, each  $\frac{1}{2}$  fl. oz.; oil of cassia, 2 fl. oz.; distilled water, q. s.

Place the oil in a dry Winchester quart, and add the tragacanth, tincture of benzoin, and spirit of chloroform, previously well mixed; agitate briskly for a minute; then add all at once a pint of distilled water, and agitate as before; lastly, add the essential oil, the glycerin, and enough distilled water to make four pints. Shake vigorously for a few minutes. The dose is from 2 to 8 fluidrachms.—*N. Y. Medical Journal*.

### Ammonia-Ferrous Sulphate.

CHICANDARD (*Lyon Med.*) suggests the use of this salt in medicine, for the reason that it is very stable, whereas the other ferrous salts speedily undergo chemical change on exposure to the air. The ammonio-ferrous sulphate, or sulphate of protoxide of iron and ammonium,  $\text{Fe}(\text{NH}_4)_2(\text{SO}_4)_2 + 6\text{HO}$ , contains one-seventh of its weight of metallic iron. Seventeen parts will dissolve in a hundred parts of distilled water. Its taste is astringent, but not so decidedly so as that of ferrous sulphate.—*Ibid.*

### Poisoning with Cannabis Indica.

SCHUSCHNY calls attention anew to the lack of uniformity in preparations of Indian hemp, and reports the case of a woman, twenty-two years old, with spasm of the bladder, who, after having taken about three grains and a half of the extract (in three doses two hours apart) showed the following symptoms: Great anxiety, dizziness, a thready pulse (132 to the minute), great sweat-

ing, and dilatation of the pupils. The intelligence was not affected. The symptoms lasted about eight hours, and were not followed by either the delightful sensations or the polyuria sometimes observed.—*Ibid.*

### Poisoning with Iodol.

PALLIN (*Hygica; Ctrbl. f. Chir.*) gives an account of a case of necrosis of the clavicle in which an operation was performed for the removal of a sequestrum and 75 grains of iodol were applied to the wound. During the evening of the same day the patient became delirious, and on the following day his temperature was  $102.2^\circ \text{F}$ ., his pulse was 136, small, and irregular, and he vomited and was apathetic. The urine showed traces of albumin and a weak iodine reaction. Although the dressing was changed at once, all the iodol being washed out of the wound and bismuth applied in its place, the symptoms of poisoning lasted four days longer, and for a fortnight iodine was to be recognized in the urine.—*Ibid.*

### The Application of Alcoholic Stimulants to Medicine; having Special Relations to the Therapeutics of Alcohol in Disease.

DR. EDWARD N. LIELL, in an article published in *N. Y. Medical Journal*, December 31, 1887, summarizes as follows:

Finally, that the adulteration of liquors and wines has a distinct bearing upon a discussion of the therapeutics of alcohol seems to me evident, inasmuch as in its employment we apply the various liquors and wines, greatly because of their bouquet and flavor, in place of alcohol in its pure state; when desiring its true physiological effects, therefore, we are to be careful always to ascertain and select a pure article.

A *résumé* of the preceding may be tersely given as follows:

1. In alcohol we have one of the most powerful and substantial agents in the treatment of disease, combining, aside from its stimulant effect, antithermic, paratriptic, alimentary, and tonic properties.

2. The mechanism of its favorable action upon the animal organism and its utility in disease, more especially acute febrile disease, may be explained in several ways : (*a*) by its dynamic action, particularly in greatly lowered arterial tension, in increasing and sustaining the vital powers, through its action upon the vascular system and nerve-centres ; (*b*) by its antithermic or apyretic property, in causing a reduction of temperature apparently proportionate to the amount of alcohol ingested ; (*c*) by its alimentary and paratriptic property, due to its own combustion and oxidation, thus retarding disintegration and oxidation of the tissues.

3. No routine practice can be followed in the use of alcohol in disease ; each case should be treated upon its merits and the indications presented ; because of the advantages accruing in most, its unqualified recommendation in all diseases is not to be thought of ; in this way it should be prescribed like any other drug or therapeutical measure.

4. Finally, measures adopted with the view of modifying or protecting any changes that take place in the tissues in disease are certainly legitimate and rational in procedure.

## DISEASES OF THE NERVOUS SYSTEM.

### The Initial Symptoms of *Tabes Dorsalis*.

ON account of the extraordinarily great importance that is accorded to the diagnosis of *tabes dorsalis* in its earliest possible state, Karger has set himself the task of studying with particular diligence the initial symptoms

of the disease. For this purpose he made use of the rich material of Mendel's polyclinic, and investigated 117 cases which he observed there, of which number he communicates 70 of the most characteristic in a table at the conclusion of his thesis.

The following are the author's results in detail:

1. The diagnosis of *tabes* offers but few and uncertain persistent points; although a very frequent etiological connection exists between *tabes* and syphilis. The author could establish with certainty the previous existence of syphilis in 53 per cent. of the cases.

2. *Disturbances of sensibility* are characteristic of the incipient stage. These are lancinating pains, next paresthesias of all kinds, such as the feeling of numbness, especially in the lower extremities, and the girdle sensation; further, slowness of perceiving sensations and Romberg's symptom, which is of especial significance and can be pretty constantly demonstrated. This, however, the author marks as an anomaly of sensibility, not as a symptom of ataxia.

3. *Disturbances of vision*. Diminution of the sharpness of vision, concentric contraction of the field of vision, amblyopia, amaurosis, depending upon atrophy of the optic nerve (35 per cent. of the cases); further, slight transient but returning paralysis of the ocular muscles, which, according to the muscles concerned—*oculo motor*, *abducens*, *trochlear* (rarely)—lead to different anomalous positions of the eye. Very characteristic is the reflex rigidity of the pupil in 66 per cent. of the cases, conditioned in part by paralysis of the sphincter and in part by

4. *Reflex disturbances*. The author comes to the remarkable result that the patellar reflex, which has been noted as absent pretty nearly without excep-

tion, was preserved eight times in his one hundred and seventeen cases and therefore preserved oftener than other statistics show. Of other reflex disturbances there are to be noted: Diminution of the bladder reflex—chronic disease of the bladder without palpable local disease, should awaken suspicion of tabes—diminution of the sexual reflex (impotence), while the abnormal increase of these visceral reflexes belong to the rarities. Other rare symptoms are gastric and cephalic crisis, tabetic diseases of joints.

The author comes to the conclusion that complaints of a vague kind, such as nervous pains, troubles on the part of the visual apparatus or of the bladder, in no way justify the physician in making the diagnosis of tabes; but that they must continually challenge him to an accurate investigation of other tabetic symptoms, inasmuch as the characteristic objective symptoms, such as loss of the patellar reflex, Romberg's symptom, reflex rigidity of the pupil, cause no subjective troubles. In conclusion, the author cherishes the proper belief that in an early diagnosis, the chances for rational medical treatment and its successful result, are much more favorable.

—*Medical and Surgical Reporter.*

#### Hereditary Chorea of Adults (Huntingtons' Chorea).

HUBER publishes in detail the symptoms and course of two cases of this exceedingly rare disease. According to Huntington, who first described it in 1872, hereditary chorea is characterized as follows: 1. It is inheritable, whole families being affected with it. If one generation escapes, the hereditary power of the disease is lost, as it has no tendency to reappear in the third generation, as other hereditary affections have. 2. It begins as an ordinary

chorea, because aggravated to the highest degree, and often leads to mental aberration with suicidal impulses. It finally terminates in death; recovery from it has never been observed. It never occurs in youth, but is most frequently met with between the ages of thirty and forty years, seldom later, and attacks men and women in an equal ratio. In the first case the choreic movements were intense, affecting at times even the tongue and soft palate. There were no signs of paralysis nor any disturbances of sensation. The electrical excitability and the reflexes were normal. The disease had begun eight years before, manifesting itself by twitching of the eyelids, then of the mouth, and before a year had elapsed the choreic movements had extended to the shoulder, head and arms. The patient's sister, his father, two paternal uncles, and the paternal grandfather and great-grandfather had been afflicted with the same disease. In another branch of the family the disease occurred also, but in a less pronounced form. The second case was observed in the sister of the first patient. She was forty-two years of age, and thirteen years before had begun to show some aberration of the mind. Six years afterward choreic movements began in the shoulder, and in two years they became almost general. A feature that characterized both patients was that with the voluntary movements the choreic became much less and even ceased.—*N. Y. Medical Journal.*

#### Recent Experiments on the Cerebral Circulation.

GARTNER and WAGNER have obtained interesting results by applying to the problems of the cerebral circulation a method, the essential feature of which consists in measuring the amount

of blood which flows through the organ in a given period of time, in other words, which passes away by the venous system. The experiments were performed on dogs, the blood flow being registered on a kymograph by the aid of a cannula placed in one of the external jugular veins, which in dogs convey the greater part of the cerebral blood. It is impossible to enlarge here further upon the technique adopted, but a note or two of the results obtained may prove of interest. Thus, in strychnine poisoning the increase of the stream velocity was striking. On the other hand, contrary to current physiological opinion, irritation of the peripheral nerves failed to cause narrowing of the cerebral blood vessels. Again, on testing with narcotics, it was found that at the commencement of chloroform inhalation the cerebral circulation was considerably accelerated, and at the same time the arterial blood pressure rose. In about a minute, or even less, however, the blood pressure began to decline, but, nevertheless, the outflow quantity remained increased. This phenomenon can clearly be due to nothing else than an expansion of the blood vessels. When the chloroform inhalation is continued for some time, the blood pressure may become so slight that little or no blood flows through the expanded blood vessels. After the administration of morphine no similar phenomena were observed. The results obtained by direct electrical stimulation of the cortex were interesting. According to Kussmaul and Tenner's investigations, this procedure should result in the production of anæmia. Gartner and Wagner, on the contrary, ascertained that a considerable acceleration was produced. Amylnitrite produced expansion of the cerebral blood vessels.—*N. Y. Medical Journal*.

#### The Use of Galvanism in the Treatment of Insanity.

WIGLESWORTH (*Journal of Mental Science*) says he has employed galvanism to a considerable extent in certain phases of insanity. Flexible plate electrodes were employed, the cathode being placed on the forehead, and the anode on the nape of the neck. From his own observations he concludes that, while the use of galvanism to the head is a procedure which is certainly not going to revolutionize the treatment of insanity, this agent is nevertheless one that is capable of doing much good in certain selected cases, and that by its judicious employment we may every now and then cure cases which would otherwise drift into hopeless chronicity. The class of cases which offers the best field for the employment of this agent is that which includes examples of mental stupor and torpor—cases which are grouped under the specific designations of *melancholia attonita* and acute dementia.—*Ibid*.

#### The Therapeutic Value of Currents of Great Intensity.

EULENBURG has employed the static current in seventy-four selected cases, including different neuroses. Six of these were permanently cured, thirty-three much improved, while in thirty-five cases other varieties of treatment were called into requisition. The most favorable effects were observed in neurasthenic conditions, complicated with cerebral symptoms (insomnia), as well as in various forms of headache. Neuralgias of the trigeminus and occipital nerves were also benefited. In sciatica and intercostal neuralgia the application of the static current was found not only of a certain amount of benefit, but specially convenient for the operator, as the removal of the patient's clothes is unnecessary. Eulenburg is inclined



to doubt the statements regarding the effectiveness of the static current in hysterical and hystero-epileptic cases, feeling confident that the favorable phenomena observed are largely due to psychical causes. Finally, Eulenburg expresses the opinion that static electricity as a factor in neurotherapeutics is destined to maintain itself. To be sure, its field is somewhat narrow, but, when employed by those experienced in its manipulation, results may be obtained with reasonable precision.—*Ibid.*

### DIGESTIVE TRACT.

#### Chloride of Ammonium in the Treatment of Diseases of the Liver.

SURGEON-GENERAL W. STEWART, in a communication on this subject to the *Lancet*, refers to a former communication of his in which he showed that, in hepatic congestion, a local depletion of the portal capillaries is effected by each succeeding dose of chloride of ammonium, and that this depletion, unlike that obtained by other measures, was not attended by depression. After stating that, with the exception of Professor Aitken, the other men in England who had used the treatment, had not given the necessary attention to diet and management, without which successful results could not be obtained, he proceeds to detail the characteristic symptoms produced by the drug in hyperæmia of the liver. These symptoms occur shortly after the medicine is taken, in from five minutes to half an hour. Sometimes a shock is felt, as if "something gave way" in the side; at other times a succession of shocks is experienced in the hepatic region, accompanied or not by a prickling sensation ("pins and needles"), or as if cold water were trickling down the side; or the action is described as that of "pulling" one hypochondrium to the other,

or from the margin of the right costal arch upwards, and backwards, as if through the liver; or a "clawing," "working," or "gnawing sensation" is spoken of as felt by the patient. With the local actions excited in the liver and related parts, motor impulses are similarly communicated to the muscles of the intestinal canal, increasing peristalsis.

In addition to the administration of the drug, the patient should be put to bed, and should have a urinal or bedpan constantly at hand. No solid food should be given; and wine, beer, or other alcoholic stimulants must be strictly prohibited. Small quantities of milk and beef tea are recommended, and the free use of barley water, as a drink. If diarrhea exist, a pill of two grains of mercury, and three grains of Dover's powder, repeated every two hours until four or five are taken, will be found the most effectual means of checking it without the risk of setting up gastro-intestinal irritation. Looseness of the bowels does not, however, contra-indicate the chloride of ammonium. The only thing which contra-indicates the immediate use of the drug in acute cases is the existence of a combined hot and dry state of the skin, with pyrexia. Under such circumstances, its use should be preceded by a few small and frequently repeated doses of solution of acetate of ammonium, till the skin is rendered moist. Fomentations or hot bran-bags applied to the seat of the pain in the side will be of use in aiding determination to the skin generally.

The author gives the drug in doses of twenty grains three times daily.

#### Treatment of Chronic Constipation by Electricity.

LEUBUSCHER (*Centralblatt f. klin. Med.*) has found electrical treatment useful in chronic constipation connected

with nervous disturbances, chronic cerebral and spinal diseases, and in cases in which the fæces were hard and dry. Hitherto the faradaic current has been for the most part used in constipation, but Leubuscher finds the galvanic current more efficacious. He passes an electrode connected with the cathode into the rectum, and applies the anode to the abdominal walls in the course of the large intestine. He does not mention the number of cells he employs, but says he used a current which, without causing pain, could be distinctly felt. Each application lasted 10-15 minutes. Although Leubuscher claims that his treatment is successful, his statistics seem only to indicate that galvanic treatment may at times be used with advantage when other means have failed. Out of fifteen cases four were cured, in nine constipation was temporarily relieved, but returned shortly after the electrical treatment ceased, and in two no good results followed. The treatment should be carried out for three to five weeks daily. The first three or four applications are generally without apparent effect, and for some time the action of the bowels does not occur from five to twenty hours after the galvanic current has been employed, but gradually the interval is reduced to two or three hours, and the fæces become softer. Where constipation is connected with abnormal weakness of the abdominal walls or atrophy of the intestinal muscles, Leubuscher recommends massage; and he advises this method of treatment, too, in the constipation sometimes present in chronic heart and lung diseases, and after prolonged intestinal catarrh.

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#### Lavage in Treatment of Gastric Affections.

DR. SOLOMON SOLIS COHEN (*Weekly Medical Review*):

Any agent, or method which promises to enlarge our therapeutic resources against those obstinate conditions of "gastric catarrh" "functional dyspepsia," etc., which are a source of distress to the patient, of annoyance to the physician, and of profit to the pepsin and patent medicine manufacturers, deserves at least a respectful consideration. The method which I desire briefly to present to the Society this evening—lavage, or irrigation of the stomach—has been employed for many years in Europe, so that it can no longer be considered to be merely on trial. In America, however, it has not won general introduction, nor am I aware that any discussion of it has been had before this body. This, then, is my excuse for calling attention to a subject in connection with which I have nothing new to communicate.

It needed not the discovery of omnipresent bacilli, those evil spirits named "legion" of modern superstition, floating about, "seeking whom they might devour," to enforce the value of cleanliness. The surgeon long ago discovered that clean surfaces would unite more promptly, that a wound kept free from foreign substances and irritating secretions, would undergo a rapid and more satisfactory course toward repair, than if the conditions were otherwise. In the treatment of the more readily accessible mucous surfaces, whether of the eye, the nose, the throat, the vagina, or the urethra, the importance of keeping the parts free from morbid secretions, from the products of desquamation, and other sources of irritation, is not a matter for debate. The extension of the same principle to the treatment of affections of the gastric mucous membrane, is but a question of mechanical detail, not of therapeutic justification.

Kussmaul in 1867 employed a double-acting stomach pump to irrigate the

stomach with alkaline solutions (Carlsbad water), and it is to this observer that we are principally indebted for a study of the method, mechanically and therapeutically. It is said, however, by Dujardin-Beaumetz, that a French physician, Blatin, had proposed the practice in 1832. It is to another French observer, Fauché, of Paris, who communicated his procedure to the Academy of Medicine in 1879, that we chiefly owe the simplification of the technique by the use of siphonage; a process employed independently by Oser, of Vienna, at about the same time. Others have variously modified the details of instrumentation and practice. Among those who have contributed most to the popularization of the method, is Dujardin-Beaumetz, who applied to it the name lavage, by which it is now described.

The manner of performing lavage, recommended by the latter observer, is that which I have followed in the few cases in which I could induce private patients to submit to it. The results obtained in these cases have been sufficiently encouraging to induce me to continue at least to propose it, wherever it seems applicable.

The apparatus and its employment are sufficiently simple. An esophageal tube with blunt, double eyed extremity, of flexible rubber, about twenty-eight inches long, and from one-quarter of an inch to a little less than half an inch in diameter—practically an enlarged catheter, and made of similar material (the one exhibited having been made by Tiemann & Co., of New York) is attached by a small section of glass tubing to a soft rubber tube about one yard in length into the free extremity of which a glass or rubber funnel of from six ounces to eight ounces capacity, is inserted. Sometimes the free end of the esophageal tube is slightly stiffened.

The patient sits, or stands, facing the physician. The esophageal tube having been dipped into warm water or warm milk, is placed within the entrance of the esophagus, and is then propelled by successive pushes into the stomach; the process being facilitated by efforts at deglutition on the part of the patient.

Many patients quickly learn to introduce and swallow the tube without assistance. A mark on the tube shows when a sufficient length has been introduced (say eighteen or nineteen inches). The funnel is then elevated to the level of the patient's forehead, and from a pint to a quart or more of the lavage solution is slowly poured in; the glass junction tube permitting its passage to be watched, and obstruction or attempted regurgitation to be detected. The patient's sensations will usually inform us when a sufficient quantity of the solution has entered the stomach. As the last portion of liquid disappears from the funnel, the soft rubber-tube is pinched near the extremity, the funnel is rapidly inverted over a receptacle placed upon the floor; and the contents of the stomach are thus removed by siphonage. These maneuvers are repeated until the returned fluid is clear.

The first introduction of the tube, and possibly the second and third, will occasion more or less dyspnœa, often nausea and retching, rarely vomiting. These effects, though partly physical, are largely psychical; and will disappear with tolerance. The dyspnœa may be immediately checked by insisting on full inspirations. Nausea is overcome as soon as the water enters the stomach, floating the tube away from immediate contact with the mucous membrane. In highly neurotic subjects, it may be well to prepare for the operation, at first, by administering full doses of bromides. I have tried anointing the end of the tube

with a solution of cocaine in glycerine, but cannot claim any striking benefit from the procedure. Firm but skillful handling of the tube is the best sedative.

Sometimes during the withdrawal of the solution, solid particles of food (grains of corn in one of my cases) may become impacted in the eyes of the tube, and the flow of liquid will cease. A little more of the solution must then be introduced, both to wash away the obstruction and to re-establish the siphon current. If the tube should be pushed too far into the cavity of the stomach, it may curve upon itself and the siphon will not work. Withdrawal of the tube for a few inches, will remedy this; if the flow is not readily established, it is said that it may be favored by manipulation of the stomach, and efforts at coughing may be made by the patient. I have not had occasion to resort to these devices.

When lavation alone (washing) is the object of the procedure, a weak alkaline solution is employed; a dram or two of sodium sulphate, sodium chloride, sodium borate, or sodium bicarbonate, in a quart of warm water, at about 100° F.

Should it be considered necessary, however, various sedative or antiseptic medicaments may be added to the lavage solution. Those most highly recommended are resorcin (one per cent.), boric acid (one per cent.), creasote (one per cent.), carbon disulphide water (one part of a solution containing fifteen grains to the quart, to two parts of water), charcoal powder (two to four tablespoonfuls), chloroform water (saturated), bismuth subnitrate, two tablespoonfuls to the pint.

In the use of agents like resorcin, carbolic acid, etc., the liability to absorption, if the solution be not all removed, must not be forgotten. In using

what he terms "milk of bismuth," Dujardin-Beaumetz advises that the solution be allowed to remain a few minutes in the stomach, so as to allow the bismuth to be deposited; after which the supernatant liquid may be withdrawn.

Lavage should be performed when the stomach is empty; therefore, some authors recommend the hour of rising in the morning. I have found noon—say four or five hours after a light breakfast—or the same interval after lunch or dinner, to be more convenient for myself, and to answer as well in most instances.

One lavation daily is usually enough. After a while the intervals may gradually be lengthened, until the process is discontinued.

The therapy is sufficiently obvious. The effects are said to be most marked in cases of dilatation of the stomach, in which delayed digestion, retention and putrid fermentation of the contents of the stomach, give rise to distressing symptoms. In all cases, where the gastric mucous membrane is in a catarrhal condition, coated with the glairy mucus which is seen amid vomited matters, or bathed in the sour liquid ejected as "water-brash;" where the production of gastric juice is impeded, or the secretion altered in quality by an abnormal condition of the membrane, extending perhaps into the tubules, or by the presence of irritative matters; where fermentation of digested and retained matters takes place; in short, in the typical case of chronic gastric catarrh or acid dyspepsia, lavage will be found highly useful. It removes any undigested matters remaining in the viscus, cleanses it from products of desquamation and morbid secretion, and gently stimulates in glands and absorbents to healthy action. In gastralgia



dependent upon the presence of irritating matters, and sometimes in cases apparently idiopathic, lavage with the employment of chloroform or bismuth as a sedative, is said to be productive of cure. I have had no opportunity to test the statement personally.

In the chronic gastritis of drunkards, the measure is said to be an excellent palliative, nor is hematemesis considered a counter-indication, unless actual ulceration exists. In cancer of the stomach it is useful as a palliative measure; and my first practical acquaintance with this method of treatment was made during my student days, in two cases of gastric carcinoma treated after the method of Kussmaul, with doubly-acting stomach-pump, at the hospital of the Jefferson Medical College, in the clinic of Professor DaCosta.

Within the last few years two new applications of the lavage method have been found. In 1885, at Kussmaul's clinic, and subsequently by Senator, Rosenthal, and other observers, it has been successfully employed in the treatment of ileus. Kussmaul explains this result by the theory of relief to the tension above the point of constriction, caused by gases and accumulated feces; with concomitant restoration of normal peristaltic action. Since 1884, Leube and other observers have made chemical and microscopical examinations of the gastric secretions and other matters removed from the stomach at various periods of digestion, and claim to have thus obtained valuable diagnostic indications. This subject, however, is beyond the scope of the present communication.

While the practice is usually confined to chronic cases, I have had occasion to resort to in one case of acute indigestion with obstinate vomiting, in a phthisical, slightly hysterical, female, with gratify-

ing result—in that the vomiting, rebellious to diet and medication, yielded to two applications of the stomach tube. In this case, before withdrawing the tube, warm milk was introduced into the stomach; a measure advocated by French writers. Indeed, there can be little doubt, but that in connection with *gavage*, or forced feeding, irrigation of the stomach assists in maintaining nutrition in phthisis and other wasting diseases.

## DISEASES OF RESPIRATORY ORGANS.

### Dietary of Chronic Tuberculosis.

UFFELMANN, quoted in the *Journal of Dietetics*, recommends several bills of fare which will serve as a guide in most of the cases.

For a consumptive who can bear only a small quantity of consistent food, he gives:—

I. MORNING—7 o'clock.—Milk, eight ounces, teaspoonful of cognac with toast bread, two ounces.

8 o'clock.—1 cup of cocoa, boiled with milk, 6 ounces.

10 o'clock.—Milk and cognac as at 7 o'clock.

NOON.—1 cup of beef broth with yolk of an egg, 5 ounces of milk and rice, 1 glass of red wine.

AFTERNOON—4 o'clock.—Sweetened coffee with milk, five ounces, and two ounces toast bread.

6 o'clock.—1 glass of milk and cognac as above.

EVENING.—8 o'clock.—1 plate (10 ounces) milk soup, with two ounces toast bread.

NIGHT.—1 glass of milk, 6 ounces.

II. MORNING—7 o'clock.—1 glass milk with cognac and two ounces toast bread.

8 o'clock.—1 cup sweet coffee with milk, six ounces.

10 o'clock.—1 cup beef broth with yolk of an egg.

NOON.—1 plate wine sago soup, mashed potatoes, two and one-half ounces scraped raw ham, prune sauce.

AFTERNOON—4 o'clock.—1 cup coffee with milk, 2 oz. toast bread and butter.

6 o'clock.—1 glass of milk with brandy.

EVENING.—8 o'clock.—plate malto-leguminous soup with meat extract, bread with butter, 2 oz. scraped ham.

Nutritive value (1 and 2)—92-105 grams albumen. 85-94 grams fat.—220-250 carbo-hydrates.

III. Bill of fare for chronic febrile consumptive who was free from dyspepsia and gradually gaining in weight.

MORNING—7 o'clock.—Six to seven ounces milk, two ounces of toast.

10 o'clock.—1 cup of beef broth with yolk of egg, two ounces wheat bread and butter, one ounce scraped ham, two ounces roasted chicken.

NOON.—1 glass of milk.

AFTERNOON—1.30 o'clock.—1 plate of soup (wine, beef, or noodle), roasted meat, four ounces, with rice or mashed potatoes, or green vegetables, one and one-half ounce of toast bread with cheese or ripe fruit, one glass red wine.

5 o'clock.—Milk soup with wheat flour or rice, or oatmeal, or weak tea with plenty of milk, with three ounces wheat bread and buter, two ounces cold veal roast, or in place of the latter 1 oz. of cheese or smoked beef tongue.

NIGHT.—1 small cup of milk.

Nutritive value about 121 grams albumen, 86 gms. fat, 350 gms. carbohydrates.

#### The Connection Between Injuries of the Head and Inflammation of the Lungs.

ROCHE has recently treated this subject critically and analytically, and has been led to adopt the following classification of the lung affections mentioned :

1. Those accidentally present with the head injury.

2. Those which occur solely in consequence of the cranial injury.

To the first group belong the so-called fibrinous contusion pneumonia, the hypostatic pneumonia which sometimes follows other injuries in consequence of imperfect distension of the lung, and metastatic pneumonia, caused by emboli from infected wounds of the head. To the second belong deglutition pneumonia and that caused by the inspiration of foreign bodies, which occur especially in consequence of simultaneous paralysis of the cortex and the vagus centre, or by the first simply through unconsciousness.

Roche states his conclusions axiomatically as follows :

1. Proof of the casual connection of injury to the head and fibrinous pneumonia cannot be produced.

2. Hypostatic pneumonia, complicating cranial injury, presupposes great prostration of the person injured. This can have occurred before the injury (old age) or be caused by it.

3. Metastatic pneumonias following injuries of the head always indicate an infection of the wound. They therefore stand in direct connection with the lesions.

4. Deglutition, foreign body, or vagus pneumonias, which develop after cranial lesions, stand in the most direct connection with the latter. They indicate relatively intense application of force, and are to be looked on as the consequences of paralyzing effects on certain cerebral regions.—*Med. and Surg. Rep.*

#### Cough Mixture.

R. Antimonii et potass. tart., gr. i ; pulv. Doveri, grs. xx. M.—Sig. Add to 10 tablespoonfuls of water and take teaspoonful every hour.

# CONSTITUTIONAL DISEASES.

## The Oil of Turpentine in Diphtheria.

THE value of this drug in diphtheria and similar diseases is beginning to be universally acknowledged, and the following results of the experiences of Dr. C. ROESSE. of Hamburg, only serve to give further proof of its efficacy in this serious disease. (*Therapeutische Mon.*)

During the past four years the author has treated sixty cases of diphtheria with the oil of turpentine, among which two patients were 1 year old, five were 2 years old, five were from 3 to 5 years old, ten were 6 years old, six were 7 to 9 years old, fifteen were 10 to 15 years old, ten were 16 to 20 years old, six were 20 to 30 years old, and only one patient was older than this.

Out of the sixty cases thus treated only five died. Two of these were the children aged 1 year, who were moribund when the author was called in, and died in the course of a few hours. Two of the other deaths were a little girl aged 2 and a lad aged 15. Both died after an illness of only thirty-six hours, which from the very outset had been of a most violent character. Both patients were well nourished and well cared for. The other death was that of a poorly nourished boy, aged 15, who was also weak and poorly blooded; in him the disease lasted for five days.

Not counting the two first named cases, there practically remains only three deaths in fifty-eight cases, which is about a death rate of five per cent.

The oil of turpentine was given by the teaspoonful three times a day. As a corrective, Dr. Roesse used spiritus ætherus, 1 gramme (16 minims) of the spirits to every 15 grammes (4 drams) of turpentine oil.

At the same time he gave a tablespoonful of a 2 per cent. solution of sodium

salicylic, every two hours; he also used ice bags, and had the patient gargle frequently with a one per cent. solution of potassium chlor.

The following are the results of his observations.

1. The fever and the frequency of the pulse decreased rapidly.
2. The subjective difficulties, such as headache and difficulty in swallowing, were soon relieved.
3. The duration of the disease was greatly shortened.
4. The local symptoms ceased to grow worse in most cases as soon as the first dose of the drug had taken effect.
5. The danger of choking only occurred in one case,—viz., that of a boy 3 years old. Tracheotomy was performed, but this is the only case in which the operation was necessary.

The author abstained from painting the throat, as he contends that his experience has shown him that the practice is utterly valueless. Aside from this, the author remarks that he considers the private practice of patients painting their own throats as very unsafe, and should be carefully guarded against.

The oil of turpentine was used with the greatest possible caution in anæmic and decrepit cases, and patients with cardiac troubles.

In sound hearted patients the increase of the heart's action was carefully watched. The author's patients were given strong bouillon or beef-tea, old port wine, and milk. The thirst was quenched with ice water, with or without raspberry syrup.

The diet consisted only of the above named fluids, no solid food of any kind being given.

Dr. Roesse stopped the use of turpentine oil so soon as the patient was free from fever and the local symptoms

had improved. Usually 15 to 20 grammes (4 to 5 drams) were sufficient, but in a few cases as much as 60 grammes (2 oz.) were given during the disease.

The author states that he has never observed any signs of poisoning resulting from the use of turpentine oil.

Slight partial paralysis was once observed after the disease had left, but was speedily corrected by small doses of iodide.—*Therapeutic Gazette*.

#### Conditions which may Result from Sewer Poisoning.

DR. HENRY HUN (*Med. News*), from twenty-nine cases, concludes that sewer gas may produce the following conditions :

1st.—Vomiting and purging, either separately or combined.

2d.—A form of nephritis.

3d.—General debility, in some cases of which the heart is especially involved.

4th.—Fever, which is frequently accompanied by chills.

5th.—Sore throat, which is frequently of a diphtheritic character.

6th.—Neuralgia.

7th.—Perhaps, also, myelitis of the anterior horns.

These conditions may occur separately, but are frequently combined, and it is especially common for the fever to be associated with other forms of sewer gas poisoning.

Finally, in cases of sewer gas poisoning there is one group of symptoms which is almost always prominent, and these symptoms are : loss of appetite, drowsiness, extreme prostration, and a dull, unpleasant feeling in the head ; and whenever this group of symptoms occurs, not as the result of an attack of acute disease, but as a chronic condition, we are justified in suspecting that the patient is exposed to sewer gas infection.

If we summarize the cases of sewer gas poisoning which are scattered through medical literature (and which have been mentioned in the notes to this paper), we find that more or less satisfactory evidence has been adduced that the following diseases may result from sewer gas poisoning :

8th.—Zymotic diseases, such as : typhoid fever, pneumonia, diphtheria, cholera, dysentery, cerebro-spinal meningitis, erysipelas, and scarlet fever (in these cases undoubtedly the sewer-gas merely acts as a vehicle for the specific germ).

9th.—A condition of asphyxia, which, in its severe form, is characterized by coma, convulsions, and collapse.

10th.—Puerperal fever.

11th.—Abscesses.

12th.—Lymphadenitis.

13th.—Acute aural catarrh. (?)

#### Formula for Terpene.

At a meeting of the Therapeutical Society of Paris, M. VIGIER recommended the following formula for terpene, which contains seven and a half grains to the teaspoonful : *R.* Honey, glycerine, of each 100 grs.; alcohol 95 per cent.; terpene of each  $7\frac{1}{2}$  grs.; *M.* Sig.—Teaspoonful, a dose.

The terpene remains dissolved if mixed in the strength of a teaspoonful to a glass of water. A smaller amount of water than this causes the terpene to precipitate.—*Progrès Médical*.

#### Paroxysmal Sneezing.

A CORRESPONDENT writes to the *British Medical Journal* as follows : Some patients have periodical attacks of sneezing in the evening, but generally there is some cause which must be removed. To give relief and stave off the attacks, a very good plan is to smear the nostrils with a little vaseline.



This will, in some people, act like a charm; in others, concentrated spirits of camphor, "a saturated solution," stronger than the preparation of the B. P., painted with the camel's hair brush up the nostrils and over the alæ of the nose. If either of these remedies succeeds, sometimes tr. oppii rubbed with the finger over the bridge of the nose, alæ, and cheeks will. But these remedies can only be considered palliative, whilst general treatment of the Schneiderian mucous membrane is persevered with in the daytime.

#### Detection of Morphine.

THE *British Medical Journal* describes a new method of testing for morphine, capable of detecting the presence of so small a quantity as  $\frac{1}{200}$  grain. A few drops of strong sulphuric acid are added to the solution, together with about the same amount of a solution of sodium sulphate (strength not stated). The mixture is heated in a porcelain capsule, and, as soon as it begins to give off sulphuric vapor, it is suddenly cooled, when, if morphine is present, it will assume an intense violet color. If it is further heated, it turns brown, and, after it is cooled, the addition of a few drops of water produces a vivid red color, which changes to a pale green on the addition of more water. If, now, an equal bulk of chloroform is added, and the mixture well shaken, the chloroform becomes of a bright blue color—*Phar. Record*.

#### Campho-phenique.

THIS is the trade or proprietary name that has been given to a very remarkable substance recently introduced into therapeutics. It is a definite chemical compound of camphor and phenol, having the formula  $C_8 H_{11} O$ , and consisting of nearly equal parts of camphor and pure

carbolic acid. It is a limpid, thick, oily, highly refractive liquid, s. g. 0.994, of an agreeable aromatic odor partaking somewhat of those of its constituents, but less pronounced than either. It is sparingly soluble in water but, unlike chloral camphor, is not decomposed thereby. It is soluble in alcohol, ether, benzol, benzine and the animal and vegetable oils. It mingles readily with vaselin and dissolves paraffin and the resins. The most remarkable property, however, of the new compound is that it is absolutely non-irritant, and though consisting of 50.5 per cent. of carbolic acid may be poured with impunity upon the skin of the tenderest infant. Poured upon an abraded or inflamed skin there is a momentary smarting and sense of warmth, which is followed by a sense of coolness and local anæsthesia. Samples have been furnished by the manufacturers to local surgeons and physicians and some of the results obtained have been very remarkable, especially in the abortion of boils and carbuncles by hypodermic injection. Equally remarkable have been some results in the treatment of necroses.—*St. Louis Med. and Surgical Journal*.

#### Influence of Weather-Changes on the Human Organism.

DR. E. S. CHISHOLM, of Tuscaloosa, Ala., after carefully noting the influence exerted by temperature, humidity, and electricity, concludes that by far the greatest power over the human organism is exerted by atmospheric pressure. In support of this theory he submits two arguments. The normal atmospheric weight on man is 14.7 pounds to the square inch at the sea level. The body is sustained by an equal power of resistance, wisely provided. If the pressure be less, the surface of the body will be distended, and the superficial circulation

is less restrained. This change can be brought about by exposure to great altitude, as well as by natural physical causes, when the circulation will be disturbed just the same. Any undue pressure on a portion of the body may then be felt. May not this disturbance of tension on soft tissues which are fixed to the bony framework of man, or where disease has a seat in periosteal and ligamentous attachments, be liable to greater inflammations? Or when a nerve of a tooth, which in a state of health is inclosed in a bony chamber (which has no expansive liberties, nor needs them as long as health continues), becomes exposed through a small aperture. When the normal atmospheric balance is lowered, the nerve has a tendency to be drawn through the aperture and takes on inflammation, probably followed by congestion and complete devitalization. A report from the Pennsylvania Hospital, some years ago, on the observation of barometric pressure in surgical operations, shows that in 259 operations the barometer was ascending in 102, descending in 123, and standing in 34. Fifty-four of the whole number were fatal, 11 having been operated on with barometer ascending, 25 when descending, and 8 when standing.—*Ibid.*

#### The Blood in Pernicious Anæmia.

S. M. COPEMAN has made careful examinations of the blood of five cases of pernicious anæmia, with the result of confirming most of the statements of other observers in this field and of discovering a new phenomenon. He always found the small red blood corpuscles mentioned by Eichhorst. The number of red blood corpuscles was much diminished, being as low as from 35 per cent. to 45 per cent. of the normal. The corpuscles were apt to change their form, becoming pyriform

or spindle shaped. When undergoing this change, the coloring matter tended to leave the corpuscles, some of which remained in amorphous masses. Rouleaux did not form, but the corpuscles appeared to adhere by their edges. The color of the corpuscles was much less intense than in health. In three of the cases it was found that the red corpuscles readily broke down, sometimes disappearing entirely, while sometimes a coarsely granular appearance was left. These specimens showed after a time an aggregation of rhombic crystals of hæmoglobin, the spontaneous appearance of which in anæmic blood had not been previously noticed. Charcot's lenticular crystals found in the blood in leucocythemia are considered by Gowers as a post-mortem phenomenon and not peculiar to the disease.—*N. Y. Med. Jour.*

#### The Etiology of Rheumatism considered from a Bacterial Point of View.

DR. ALFRED MANTLE (*British Med. Jour.*) draws attention to the circumstance that there are certain conditions of the body alike favorable to the development of rheumatism, scarlatina, and erythema nodosum. This, he says, argues that all these diseases are brought about by a similar poison. Holding these views, he set about making investigations in rheumatism. A dram of serum was withdrawn, under the strictest antiseptic precautions, from the knee joint of a patient suffering with acute rheumatism. With this serum several sterilized tubes of gelatinized meat-infusion were at once inoculated, and in each tube a copious growth took place. He had found two kinds of bacteria—a micrococcus and a small bacillus. Cover-glass preparations of blood and serum showed micrococci as single cocci or pairs, and in acute cases zooglœa masses; in addition, small,

short, thick bacilli were also seen, either single, in pairs, or in colonies. These bacteria were easily stained with methyl-violet, with fuchsin, or by Gram's method. In two cases of purpura rheumatica he found no bacilli. In one case of gonorrhœal rheumatism bacilli were found only in the blood. In chronic rheumatism and rheumatoid arthritis the bacteria were found. Might not the chemical products of these bacteria be lactic acid and thus form the chief ptomaine of the disease? The author found that cultivations of the bacteria of rheumatism, amygdalitis, erythema nodosum, and scarlatina, produced lactic acid fermentation in sterilized milk.

#### Alcohol in High Latitudes.

IN spite of the discovery of so many new remedies and the discussion resulting there from, the main battle of argument is still waged about alcohol. Commission after commission has contributed its decisions, and still the question is unsettled. Recent decisive testimony upon one phase of it, however, has been given by General Greely, of Arctic exploration fame.

The last half-century has witnessed a marked reduction in the amount of alcohol supplied to men engaged in exploration in the high latitudes. The experience of previous years has finally made itself felt in official utterance. In one of the recent British expeditions, Sir Alexander Armstrong, Medical Director of the Navy, expressly counselled against alcohol rations for regular distribution, and advocated in their stead the use of cocoa and tea, but the officers in charge saw fit to allow the men two ounces of rum daily and double that amount during the absence of the sun.

One-fifth of the officers and over one-half of the men suffered from scurvy.

In Greely's expedition the amount of spirits taken was calculated on the basis of four ounces per man weekly. In the long period of exposure to which the latter party was subjected, it was indisputably shown that spirits given on the march impaired resistance to cold. Given in small quantities after the day's work was over, they distinctly stimulated the mental faculties, without any unpleasant effects. This small quantity was generally about two ounces. More than this seemed merely a waste. In the latter history of the expedition, it was recorded that one-fourth of an ounce of pure alcohol, diluted with three times its weight of water, had an equally pronounced effect. It seemed to supply food and to have a decided alimentary value. These results are what have been claimed for alcohol ever since its physiological effects have been critically studied. Their integrity has often been assailed by well-meaning but misguided enthusiasts, to whom anything concerning alcohol savors only of the powers of darkness. Upon them all argument is wasted.

General Greely's observations are valuable additions to our knowledge concerning alcohol. The facts which they narrate were indeed known before, but they have now received an authentic confirmation, and that, too, under most trying circumstances.—*Med. Record.*

#### Investigation into Cholera Infection Received Through the Blood.

THE following are the conclusions arrived at by Professor GUIDO TIZZONI and Dr. GUISEPINO CATTANI, in a preliminary communication to the *Centralblatt f. d. Med. Wissensch.*

1. That it is possible to obtain in animals infection in an acute form through the injection of even a small quantity of the poison of cholera into the blood



whenever the animals concerned yield the same conditions which are necessary for artificially calling forth infection in other ways.

2. That by injections alone, even copious ones, of cholera poison into the blood, no result is obtained.

3. That the comma bacilli that are injected into the blood are preserved there some time, and are still capable of culture after twenty hours.

4. After the lapse of a certain time, whose length varied in the different experiments, and after which the comma bacilli were no longer demonstrable in the blood, they still persisted in the peritoneal serum and in the organs, but especially, in experiments covering some time, in the spleen.

5. The negative results which the contents of the intestines, the bile and the urine afford, prove that the comma bacilli that penetrate into the blood are not expelled from the latter in this way.

6. And it may be further assumed that if death can be brought about through a small quantity of cholera poison, as was the case in our experiments, that this increase may occur in the blood; and, although upon the above-designated grounds it could not be proved, whether this increase occurred directly in the blood, or in other fluids of the organism, or in the organs, yet at the very least one may be permitted to doubt very much, contrary to the achievements of Hueppe, that this increase necessarily takes place in the intestinal contents as the place of least resistance.

7. Finally, we cannot avoid directing attention to the facts indicated by us of the constant passage of comma bacilli from the blood into the peritoneal serum, as well as of their presence in this fluid, even when they are

no longer demonstrable in the blood itself, which would be sufficient to explain how, in acute cases of cholera, arising in the natural way, the comma bacilli, which have penetrated into the blood, pass from this at once into the serous fluids. We have proved this in one case by culture of the cerebro-spinal fluid itself.

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#### Emotional Temperature.

PROFESSOR DA COSTA has noticed what he calls an emotional temperature in cases, most especially women in childbed. The temperature may reach as high as  $110^{\circ}$ , and yet recovery take place. The duration is very short, only a few minutes.—*Coll. and Clin. Record.*

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#### Blaud's Pills.

THE following is the formula given for these pills in *N. Y. Medical Journal*: Sulphate of iron, 60 grs.; carbonate of potassium, 36 grs.; powdered sugar, 12 grs.; powdered tragacanth, 4 grs.; glycerin, distilled water, each  $2\frac{1}{2}$  m.

Reduce the sulphate of iron to a fine powder, add the sugar and the tragacanth, and mix intimately. Reduce the carbonate of potassium to a fine powder in another mortar, and thoroughly incorporate the glycerin and water with it. Transfer this to the mortar containing the sulphate of iron, beat thoroughly until the mass becomes green and assumes a soft pilular consistence, and divide into twenty-four pills, each of which will contain one grain of ferrous carbonate. Dose from one to three pills.

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#### Tannin in the Treatment of Inflammation of Mucous and Serous Membranes.

IN seeking to account for a rapid and unexpected cure obtained from tannin in a case of pleurisy, Dr. DEBOUÉ (of Pau), has come to employ this substance generally in a group of affections

unlike in appearance, but united by common ties. His description of the method of using the drug is as follows :

1. In numerous cases I have observed that tannin, administered internally to the exclusion of all other medicaments, has produced a rapid quieting of the diverse symptoms occasioned by grave acute inflammations, either partial or general, situated in serous membranes, either cranial, thoracic, or abdominal. Employed perseveringly, it constitutes equally one of the most powerful means of overcoming the chronic forms of some inflammations notably chronic pleurisy and partial peritonitis.

2. It has been employed with equal success in the inflammations of some mucous membranes, notably enteritis, bronchitis, pulmonary congestions, and also in one apparently desperate case of double pneumonia.

3. Some facts observed with care seem to demonstrate that this treatment may further prove useful in certain affections where epithelial alterations have changed the normal conditions of endosmosis and exosmosis, and notably in some as yet undetermined varieties of ovarian cysts.

4. Useful doses vary with cases and subjects, and may range from seven to ten grains up to two or three drams a day, without becoming at all offensive.

5. The rapidity of the action of tannin has been remarked by all who have made use of this therapeutic agent. But this rapidity of action is, above all, striking in the gravest cases, and in the results attained it gives such character of evidence that it becomes impossible to attribute them to simple and happy coincidences.

6. When administered in a state of health, tannin produces constipation and other alimentary troubles, which, without being grave, nevertheless pre-

vent its prolonged employment. When, on the contrary, it is applied to the diverse maladies enumerated in this memoir, and notably those in which abundant serous exudations occur, it combats constipation, stimulates or revives the appetite, provokes abundant perspiration and urine, and is perfectly tolerated at times in very large doses, while the medication may be continued for months and even for years. In three cases of the greatest gravity, one of meningitis, one of double pneumonia, and one of cerebral rheumatism, after some hours it caused delirium to disappear, and those three cases terminated in cure.

7. In order to act with full efficacy tannin ought to be employed in a state of purity. That which I have made use of is the tannin prepared according to the process of Pelouze. Tannin of good quality is yellowish, or greenish yellow, or of a ground red. The latter is of untrustworthy character, and produces intolerance even where this medication is most strongly indicated.

8. In ninety-four cases of various affections that I have treated with tannin, sixteen have presented a condition of extreme gravity. Of these sixteen cases eight were of purulent pleurisy, two of pelvic peritonitis, one of perityphlitis, one of puerperal peritonitis, one of cerebro-spinal meningitis, one of cerebral rheumatism, one of double pneumonia, and one of intussusception. Taking account only of the sixteen very grave cases, I have had five deaths, of which three were of purulent pleurisy, one of pelvic peritonitis, and one of intussusception, which makes a mortality of thirty-one and a fourth per cent. As to the other cases, of which a large number were also grave, as they pertain to diverse affections which are not admissible of comparison, it is not a matter of in-

terest that they should be ranged in the same statistical manner. It suffices to, say that the employment of pure tannin in all these various cases has produced an amelioration ordinarily quite prompt, followed nearly always by definitive cure more or less rapid, according to the case.—*Jour. de Med. de Paris.*—*American Practitioner and News.*

#### The Perspiration.

THE result of elaborate research made by M. PEIPER yields the following conclusions (*Lancet*): The perspiration is more concentrated on the right side of the body; this observation is in accordance with that of Reinhardt; it would be interesting to know whether the opposite was the case in the left-handed. The palm of the hand sweats four times more than the skin of the chest, and the cheeks one and a half times as much. There is a slow increase in the sweat in the afternoon, especially obvious from 8 to 12 o'clock at night. After midnight there is a diminution. Feeding has but little influence on this function. Elevation of the surrounding temperature increases the perspiration, and variations of the hygrometric state of the atmosphere have an immense influence on the function. The quantity of water evaporated in a quarter of an hour from a cutaneous surface 25 centimeters square, in a normal individual, is about 1.76 of a gramme. In infants the quantity is generally less than in adults. The weight of the body and sex have no influence on the perspiration.—*Weekly Medical Review.*

#### Elixir of Saccharin.

A CONVENIENT fluid preparation for dispensing purposes is: Saccharin, grs., 24; bicarbonate of sodium, grs., 12; rectified spirits of wine, fl. dram, 1; distilled water, fl. drams, 7.

Rub the saccharin and bicarbonate of sodium in a mortar, with the water gradually added. When dissolved, add the spirit and filter. Twenty minims contain 1 grain of saccharin. This is sufficient to flavor a four ounce mixture.—*American Druggist.*

#### Benzine in Making Suppositories.

A CORRESPONDENT writes to the *Druggist's Circular*, recommending benzine as an agent in making suppositories without the aid of heat. He rubs the medicinal ingredients thoroughly with the cacao butter and then drops benzine into the mass, a very little at a time, and is thus able to bring it to a pilular consistency. Lycopodium is used for dusting and the suppositories are either rolled or gently forced into a mould. They harden rapidly. Ether may be used instead of benzine, our correspondent says, but prefers the former.

#### The Value of Tincture of Strophanthus.

DR. HOCHHAUS thus summarizes his observations of the effects of tincture of strophanthus:

1. For a valvular weakness in the stage of compensation disturbance, tincture of strophanthus is an excellent remedy in certain cases, to retard, strengthen and regulate the cardiac action. The retardation occurs first, while the regulating effect only takes place, as a rule, after a few days. Dyspnoea and oedema are promptly relieved. But the favorable effects, in about one-half the cases, do not appear with the regularity and safety peculiar to digitalis; and in most cases in which strophanthus failed digitalis was effective. Digitalis has, generally, a quicker and more thorough effect, especially in causing diuresis, while strophanthus affects a disturbed respiration far more favorably. It is more difficult to indi-

cate strophanthus than digitalis in cases of valvular weakness, so that it is almost impossible to say beforehand in what cases strophanthus will probably be successful.

2. In chronic degenerations of the cardiac muscle, with usually a small, frequent, and irregular pulse, great difficulty in breathing, and œdemas, tincture of strophanthus may be relied on.

3. In acute and chronic nephritis the effect of strophanthus is not so marked as in the above mentioned effections. The dyspnœa often yields to its influence as in the other diseases, but the diuresis and œdemas are not favorably effected by it.

4. In cases of palpitation and apnœa of nervous origin strophanthus often gives marked relief.

5. Œdemas of a cachectic character may be also favorably affected by tincture of strophanthus.

6. In some cases the drug has secondary effects on the digestive tract, causing a loathing of food, followed by choking and vomiting after eating, and sometimes by severe diarrhea. But, as a rule, the aversion to food is the only disturbance, and this passes off when the stomach becomes used to the drug.

7. Hochhaus advises to begin with doses of gtt. vj, t. i. d., in a tablespoonful of water or wine, and to add gtt. ij daily to the dose until the effect is obtained; though it is not advisable to give more than gtt. xx t. i. d. Gtt. iij t. i. d. is the proper dose to begin with for children, but the doses should not exceed gtt. v, t. i. d.

8. The effect usually appears on the second or third day, and generally lasts a week or two weeks, though there is considerable variation. Hochhaus has never seen a cumulative effect, even after long use of the drug.

9. While strophanthus cannot lay just claim to all the praise bestowed upon it, it is valuable as an occasional substitute for and ally of digitalis—*Deutsche Med. Woch.—Jour. American Medical Assoc.*

## DISEASES OF THE NERVOUS SYSTEM.

### A Few Words on a Certain Kind of Insomnia.

DR. F. EKLUND (*Ther. Gazette*):

The two most reliable signs of perfect health are, firstly, absence of pain; and, secondly, the ability of sleeping tranquilly and soundly.

But unfortunately, the above state is comparatively rare, as the actual number of those who are victims of this most trying and serious affection—insomnia—is very great, and, moreover, is still on the increase.

As it would be beyond me to enter into a minute or exhaustive treatise on the subject, I must content myself with giving the reader a short account of a certain kind of insomnia which is most frequently met with, and which at the same time is most difficult to treat. I refer especially to the insomnia caused by malaria.

Guided by the experience of many years, I will, in as few words as possible, jot down the results of my observations concerning the different symptoms and forms of the malady. Serious mistakes may result if the cause of any insomnia be either mistaken or unknown.

First, we have a group of patients who sleep neither day nor night. It seems an utter impossibility for them to close their eyes or rest for a moment. All during the long night-watches they lie wide awake and count each stroke of the clock, and are painfully conscious of every sound. They are tortured by their own thoughts, and arise in the morning tired out instead of refreshed,



scarcely able to get about, and almost entirely unfit to attend to their daily duties. During the day they sometimes feel overpowered by sleep, but when night comes again it is only a repetition of the previous one, and again the morning dawns without the patients having enjoyed a moment's sleep.

In another form of this complaint, when the patients have once awakened they find it utterly impossible to get to sleep again, after, perhaps, a rest of only two or three hours at the very longest. Nevertheless, they will feel strengthened and refreshed by this short sleep sufficiently to be able to attend to their business, during which, however, they frequently break down, overcome by fatigue, their limbs seeming to give way under them.

To a third class of insomnia belong those patients who are able to sleep well upon retiring, but who always wake up at a certain time or moment. If it be on the hour, they will always start up out of their slumber while the clock is still striking, and after that there is no sleep for them for the rest of the night. When they awake they state that their short rest seems to have perfectly refreshed them, but they are usually subject to slight chills and fever and sweating, also to neuralgia and lumbago, and frequently to exhaustion.

It is most frequent upon careful examination of such patients to find that they for some time past have been suffering from intermittent fever, and are thus under the continued influence of malaria, and intermission is always more or less evident.

It is my intention to endeavor to give a natural and plausible explanation of the cause of this peculiar insomnia, and it will be hardly necessary for me to add that my conclusions are not based on hypothesis, but on practical experience.

It is a well-known fact that certain alkaloids, such as caffeine, theine, and theobromine, have the property of causing wakefulness.

It seems very probable to me that the microbes of malaria might produce a similar pathological action in many respects to that caused by the above mentioned alkaloids. It is evident that these microbes are contained in great quantities in the veins, and also in the smaller vessels of the pia mater and the large ganglions of the brain. Here they may act as a most delicate "reagent," by means of which the existence of malaria may be proved,—viz., their effect in producing insomnia of the patient.

Regarding the treatment of such malaria I have invariably obtained the best results by using quinine.

The treatment generally restores sleep to the patient in a very short time. The following is the formula I mostly use:  $\mathcal{R}$ . Quin. sulph., .40 to 1 grm. (6 to 15 gr.); sod. bicarb., 1 to 2 grm. (15 to 30 gr.). M. S.—F. tal. dos. No. xii. ad caps. amyl. Take one powder or capsule every morning, and, if the case require it, one in the evening.

I found this formula to be most useful. I used the sodium bicarbonate because in most cases the patients were greatly troubled by symptoms of chronic gastric catarrh, which was relieved by its use. In some special cases I found quinine combined with dilute phosphoric acid to be of great value in the following formula:  $\mathcal{R}$ . Quin. sulph., 4 grm. (60 gr.); acid. phosphor. dilut., 5 grm. (75 gr.); syrup. zinzib., 30 grm.; aq. dest., 120 grm. M. S.—A tablespoonful twice a day.

It will perhaps be unnecessary for me to state that I am bitterly opposed to the use of morphine, chloral, or any other narcotic or soporific in such cases. All my honored colleagues agree with



me as to the danger of the use of such drugs in this affection. Instead of doing good, they augment and heighten the disease more than the microbes themselves do. In connection with this comes also an overwhelming sensation of excessive fatigue and mental depression, accompanied frequently by increased sexual desires and a morbid anxiety about business, etc.

I have furthermore found a hydro-pathic treatment to be of great service in the treatment of such insomnia, and usually administer a hip bath twice daily. The temperature of the water should be from  $28^{\circ}$  to  $32^{\circ}$  C., and the patient should remain in the bath for two to four minutes. The water should cover the navel. It may be necessary for the patient to take a course of forty or fifty such baths during treatment. After the bath the body and limbs should be washed and then well rubbed. A bucket of cooler water (say  $18^{\circ}$  to  $20^{\circ}$  C.) may be poured over each shoulder, and later, after ten such baths have been taken, the patient should take a cold shower ( $10^{\circ}$  to  $15^{\circ}$  C.) for about twenty seconds or a minute, and should then be well dried and rubbed. A massage treatment has also good effects.

In advanced stages of the malady friction should be used with a bath towel dipped in tepid, fresh, or even cold water, as soon as the patient has gotten up.

As for my personal experience, I have spent many days and nights in the marshes; indeed, for the last eight years have lived and practised in a marshy country, and have found the above treatment to be most invaluable both in treating my patients and myself.

#### Local Massage for Local Neurasthenia.

DR. DOUGLAS GRAHAM, of Boston, Massachusetts, arrives at the following

conclusions upon this form of treatment in a paper in the *Boston Medical and Surgical Journal*:

1. Massage induces sleep.

2. Even when massage is applied in the forenoon its soporific effects may not disappear before bedtime; though in general, the later in the day massage is used for promoting sleep the better.

3. Disagreeable feelings of drowsiness and languor do not necessarily intervene between massage in the forenoon and sound sleep at bedtime. Aptitude for rest or work generally follows massage.

4. When people are wakeful after massage, they may not be restless or feel the loss of sleep on the following day.

5. Spinal irritation is relieved or disappears under massage.

6. For local neurasthenia there is no need of general massage, unless the whole system be secondarily influenced.

7. When affections have come to a standstill under massage, improvement may yet go on after massage has been discontinued.

8. For improving the nutrition of nerves and muscles, restoring natural sensation and motion, massage may succeed when other means have failed.

9. Deep massage without friction has proved of more value in my hands than all other forms of massage put together, in the case herein considered.

10. Massage can be overdone, producing opposite effects from a moderate application.

11. Besides massage, carefully graduated exercises at regular times are valuable accessories in the restoration of motion.

12. Massage is not the only means of treatment for neurasthenia. Its selection is usually decided upon after the failure or exhaustion of every other

means; in the same manner that the shrewd old divine decided that it was not wise to let the devil have all the good times to himself.

#### Treatment of Headaches by Nitro-Glycerin.

DR. TRUSEVICH publishes in the *Ejendelnaya Klinicheskaya Gazeta* a series of observations on the effect of nitro-glycerin on headaches. He adopts in the main the classifications of headaches made by Dr. Day, whose work he translated into Russian, in which language it has already gone through two editions. The preparation generally used was a 1 per cent. alcoholic solution, though in a very obstinate case the 10 per cent. solution was used, two drops being first given, and after an interval of two minutes three more. The result of this heroic medication was that the patient, a girl of fifteen, became pallid, and her pulse very weak; however, a little water and some smelling salts quickly revived her, and she was none the worse. The nitro-glycerin had no effect on the headache, which was of a persistent character, and was probably due to some organic lesion, perhaps an affection of the cranial bones. As a rule, two or three one-drop or two-drop doses of the 1 per cent. solution placed on the tongue at intervals of a very few minutes sufficed to arrest the headache. The conclusion arrived at was that all cases which depend entirely, or almost entirely, on a vaso-constrictor neurosis are immediately curable by nitro-glycerin. In cases where the cerebral anæmia is partly due to deficiency or poorness of blood, milk, iron, arsenic, quinine, and other tonic remedies are of course required in addition to the nitro-glycerin. The chief indications for the successful treatment of migraine by nitro-glycerin are pallor of the face and a paroxysmal character of the pains, also

their augmentation on pressure of the carotids, and their diminution when the head is lowered. In "nervo-hyperæmic headaches" nitro-glycerin is useful, but it only acts indirectly by dilating the vessels in other parts of the system, and thus relieving the congestion in the cerebral vessels. It is positively injurious in headaches depending on passive hyperæmia. On this subject, however, Dr. Trusevich promises a future article. As a rule, he thinks that if nitro-glycerin fails to relieve, the prognosis is probably bad, as the pain is generally due to some organic lesion, such as thickening of the fibrous coverings following chronic alcoholism or syphilis, or to some osteophyte caused by periostitis, or, lastly, to morbid changes in the cranial bones. In some headaches of rheumatic origin nitro-glycerin appears to have some effect, but Dr. Trusevich thinks that in others massage would probably be more beneficial. When headaches are due to heart, lung, or to hepatic disease which causes passive congestion in the cerebral vessels, nitro-glycerin cannot be expected to do much good.—*Lancet*.

#### The Action of Antipyrin in Epilepsy.

M. GEORGES LEMOINE, in a paper on the action of antipyrin in epilepsy, sums up his conclusions as follows: Antipyrin is without action in the majority of cases of epilepsy, but nevertheless gives good results in those cases which belong to the following categories: (1) Epileptics in which the attacks are influenced by menstruation. (2) Epileptics who only have suppressed attacks. (3) Epileptics with migraine.

A daily dose of thirty grains suffices in the majority of cases, and its employment can be kept up for a long time without any danger to the patient. There is no advantage in doing this, however; because patients become

habituated to its use. It should be reserved for the period when the crises occur, and is to be preferred to the bromide of potassium in cases indicated.—*Gaz. Méd. de Paris.*—*Ther. Gaz.*

### DIGESTIVE TRACT.

#### Acute Dysentery..

DR. M. F. COOPER, of Drummond, Tenn. (*Miss. V. Med. Month.*, Sept., 1887), states that an endemic visitation of this disease last year yielded best to the abortive treatment. A favorite mixture was—℞. Sodæ et potass. tartrat, 3 j; tinct, opii camph., aquæ camphor, āā 3 j; aquæ puræ ad. 3 vj. M. S.—Teaspoonful after each action until changed in character.

The writer treated last year nearly one hundred cases, and all of the acute types yielded to this treatment. If the system was run down, the results were not so good, and quinine was given with favorable results. When the dark, serous stools appear, whether free from blood or not, the bowels are locked up with the following: ℞. Pulv. opii. gr. xx; pulv. camphor gr. xx; plumbi acetat, gr. iv. M. Divide into ten or twenty pills. S. One to be given every four or six hours *pro re nata*.

Quinine is essential in malarial regions. Opium is considered the best drug for pain and vermicular action. The writer believes that dysentery enters the second stage from twenty-four to forty-eight hours after the beginning of the attack.—*St. Louis Medical and Surgical Journal*.

#### Camp Diarrhea.

DR. CHAS. W. BUVINGER, of Pittsburgh, says of the therapeutics of camp diarrhea, that the best remedy yet found, according to his opinion, is oil of turpentine. He gives it in emulsion, as follows: ℞. Acaciæ pulv., 3 jss; ol. terebinth, f 3 ij

3 ij; misce et adde: Aquæ, f 3 iij; syr. simpl. ad f 3 xij. M. Sig.—One teaspoonful every three hours to adults.

Another efficient remedy is a mixture of mercury and ipecac as follows, the same being also most excellent in summer diarrhea: ℞. Hydrarg. chlor. mit. gr. ij; pulv. ipecac. gr. iij; opii. gr. v. M. et in chartulas no. x. divide. Sig.—One every three hours.—*Ibid.*

#### The Absence of Hydrochloric Acid and Gastric Juice in Non-carcinomatous Affections of the Stomach.

J. GRUNDZACH found five among several hundred patients that he had examined in Reichmann's laboratory, in whom there was absence of hydrochloric acid and pepsin in affections of the stomach which were not carcinomatous. In the first patient, thirty years of age, apparently well nourished, who suffered from frequent attacks of dyspepsia, the most prominent feature was vomiting, which came on two hours after eating. The cause was not clear. Case II was in a man, thirty-seven years of age, who was given to the abuse of alcohol and had suffered with dyspepsia for three years. He looked very well, but complained of weakness and anorexia. There was no dilatation of the stomach. Case III was observed in a patient, thirty odd years old, who had suffered with dyspeptic symptoms for years. He was not given to the abuse of alcohol. The most prominent symptom was vomiting, which came on usually at night. Dilatation of the stomach did not exist. The two other patients—one sixty-four years old, the other thirty—presented similar symptoms. The examination of the stomach contents of those patients gave the following results: 1. Considerable mucus of neutral reaction, and epithelial cells from the mucous membrane of the mouth, pharynx, and stomach were

found, and in four of the cases shreds of bloody mucous membrane. 2. In none of the cases was there hydrochloric acid during the whole stage of digestion. 3. The motor power of the stomach did not seem to be at all disturbed. That these cases were not carcinomatous was concluded from the following: 1. The duration of the affection in each case being several years. 2. The considerable quantity of mucus, indicating a catarrhal nature. 3. The absence of any tumor. 4. The age of the patients. 5. The absence of cachexia. 6. The good condition of the general nutrition. The author would look upon the condition of these cases as being atrophic catarrh of the stomach. The treatment of such cases consists in washing out the stomach and in the administration of hydrochloric acid and pepsin. It was of great interest to note that, though the secretory functions of the stomach were *nil*, the mechanical function was intact. Another feature worthy of note also was the circumstance that the patients were well nourished in spite of there being no gastric digestion. It showed that the intestinal digestion was sufficient to maintain the nutrition of the body. The facts of these cases upset the theory broached by Brücke, and generally adopted, that the normal secretion of the gastric mucous membrane excites the motor function of the stomach. The presence of food would seem to be all that is necessary for that purpose.

[As interesting and singular as the facts relating to the foregoing cases may be, we think that the author was rather hasty at arriving at a conclusion. We should like to know for how long a period the patients were under observation, and had the contents of their stomachs examined microscopically and chemically. Their subsequent history

would seem essential also in order to form an opinion of the nature of their malady. Cancer of the stomach is not infrequently preceded for years by simple dyspepsia, and may remain latent for a time, manifesting itself only by the absence of hydrochloric acid in the stomach. Atrophy of the mucous membrane is a very rare affection, its existence being denied by some very able pathologists. The few authentic cases on record have all been attended with very serious disturbances in nutrition and in blood formation. The patients in nearly all the cases were the subjects of progressive pernicious anæmia, which was looked upon as being caused by the condition of the stomach.]

Wolff and Ewald's communication (*ibid.*) is of interest in connection with the foregoing. Of seventeen patients that they had examined for a long period, it was found that there was an absence of hydrochloric acid during digestion in eight. Six made no complaint whatever of dyspeptic symptoms, and there could not be the slightest suspicion of cancer; one suffered from hysterical vomiting, which came on after the principal meal of the day. But that symptom had disappeared. The remaining patient was the subject of uterine cancer, and suffered with severe gastric disturbances. She died a few days before the publication of the article. At the autopsy, the stomach, bowels, and diaphragm were found entirely free from any cancerous nodules. Apart from that found in the uterus, there were a few nodules, of the size of cherries, on the anterior and posterior surfaces of the liver. These eight patients were given thirty drops of dilute hydrochloric acid after each meal for fourteen days. At the expiration of this period the contents of the stomach were again examined, with negative re-



sults as to hydrochloric acid. The majority of the patients were well advanced in age, ranging from forty-four to eighty-one years. Ewald avails himself of the opportunity of rectifying a prevailing error as to his views on this subject. He quotes from a former article of his, in which he says: "The negative result with the usual hydrochloric acid test forms a valuable support of the diagnosis of cancer, but is not a decisive sign of that affection."—*N. Y. Medical Journal*.

#### Large Doses of Olive Oil in the Treatment of Hepatic Colic.

Dr. J. TOUATRE, of New Orleans (*Lancet*), gives an interesting account of his own cure of biliary colic and gall-stones. The method of procedure was as follows: At seven in the evening a blue pill of the weight of  $2\frac{1}{4}$  grains was taken, and this was followed twelve hours later by a draught of twelve tablespoonfuls of olive oil; a quarter of an hour later a similar dose of olive oil was taken, and then the patient addressed himself to sleep on his right side. At nine o'clock the blue pill acted, producing a copious bilious evacuation, but no gall stones were passed. At three o'clock in the afternoon there was another bilious stool without stones, but from seven in the evening till midnight six stools were passed; the first two contained seventeen calculi of the size of a large pea, of conical shape, grayish-yellow aspect, and soft consistence. Altogether sixty stones were passed, and six of these had the volume of an olive, and were of a black color. The passage of these calculi by the cystic and biliary canals was for the most part unattended with pain, a few spasms being felt, probably at the time of the movement of the large calculi. An inexpressible relief was obtained from the pains over the

liver and shoulder, which had previously caused much distress; the liver also diminished in size. For three months Dr. Touatre enjoyed perfect health, when the trouble began again; the olive oil was repeated in similar fashion, and with the result that eighteen more calculi were discharged by the bowel.—*N. Y. Medical Journal*.

#### The Time for the Administration of Acids, Alkalies, etc.

A CORRESPONDENT of the *British Medical Journal* says: My teacher, Sir Robert Christison, as far as I can remember, taught us the following rules: Alkalies should be given before food. Iodine and the iodides should be given on an empty stomach, when they rapidly diffuse into the blood. If given during digestion, the acids and starch alter and weaken their action. Acids as a rule, should be given between the digestive acts, because the mucous membrane of the stomach is in a favorable condition for the diffusion of the acid into the blood. Acids may be given before food when prescribed to check the excessive formation of the acids of the gastric juice. By giving it before meals you check the osmosis stomachward of the acid forming materials. Irritating and dangerous drugs should be given directly after food, such as the salts of arsenic, copper, zinc, and iron, except where local conditions require their administration in small doses before food. Oxide and nitrate of silver should be given after the process of digestion has ended; if given during food, chemical reactions destroy or impair their special attributes, and defeat the object for which they were prescribed. Metallic salts, especially corrosive sublimate, also tannin and pure alcohol, impair the digestive power of the active principle of the gastric juice,



so should appear in the stomach during its period of inactivity. Malt extracts, cod-liver oil, phosphates, etc., should be given with or directly after food, so that they enter the blood with the products of digestion.

### DISEASES OF THE URINARY ORGANS.

#### Circulatory Changes in the Kidneys Under the Influence of Cardiac and Other Remedies.

THE exact action of drugs which increase the flow of urine from the kidneys is a question which as yet has not been conclusively answered, but one which is, nevertheless, of vast importance, and deserves careful study and research. Only lately Dr. G. SMIRNOW has been carrying on a series of most careful and interesting experiments in the chemical laboratory of Professor S. P. Botkin, in St. Petersburg. The results of his experiments regarding the action of cardiac remedies on the kidneys have led him to the following conclusions :

1. Injections of infusion of digitalis, adonis vernalis, and convallaria majalis in moderate doses increase the pressure of blood in the kidneys and decrease its volume. This contraction of the kidneys continues as long as the pressure remains high. As the latter decreases (or a little before) the kidney will gradually increase in size, and finally becomes much larger (two to four cubic centimetres) than it originally (normally) was. The whole process takes from three-quarters of an hour to an hour, until the kidney has again assumed its normal, or nearly normal, size, which, of course, depends upon the blood pressure.

2. The second experiment, as also the first, was performed upon animals under the influence of morphine. The same drugs were given, and it was seen that at the moment of the contraction

of the kidneys the secretion of urine stopped entirely, and did not recommence until the kidneys had again begun to increase in volume. The increase of secretion was always in proportion to the enlargement of the kidneys.

3. If the nerves of the kidneys be severed, naturally with the exception of those which are in the walls of the vessels, a contraction of the kidney will take place just as quickly, by means of the same remedies, as when the nerves are left untouched. The subsequent increase in volume is, however, much slower, and finally but slightly exceeds its original size.

4. In further experiments, in all of which the urine was carefully collected, it was seen that under the influence of digitalis there was always a cessation of the secretion at the moment of the contraction of the kidneys, both when the nerves were left intact, and when they were severed. The increase of secretion always took place first in the kidney the nerves of which had not been cut, and also ceased sooner than in the kidney the nerves of which had been severed.

5. Neutral salts (natron nitricum and natron aceticum) cause similar changes in the circulation of blood in the kidneys; they exert, however, a different effect upon the pressure of blood. When first acting (when given in large doses), the pressure sinks slightly, whereby the volume of the kidney is also somewhat decreased; then with the rise of pressure the volume of the kidney increases in exact proportion.

6. These symptoms are not changed by severing the nerves.

7. If the pressure of blood is reduced by any reason about twenty to thirty millimetres, then the injection of the above named salts has no effect on the circulation of blood in the kidneys.—*Med.-Chir. Rundschau*.—*Ther. Gazette*.

**CONSTITUTIONAL DISEASES.**

**The Treatment of Typhoid Fever in the Hospitals of New York, Boston, and Montreal.**

*New York Hospital.*—During the early part of this summer the routine treatment of typhoid fever in Dr. Peabody's wards, if the patient entered during the first ten days of disease, was a calomel purge immediately followed by naphthaline in doses of ten grains every three hours. The first seven cases died (two having entered the hospital moribund), one of septic infection, one of acute mania, and the three others simply from the intensity of the poisoning, the lesion being very extensive.

Since August 14th, we have had but one death in twenty-one cases—two of these are still sick, but doing well—of this number, thirteen have had absolutely no treatment directed to the intestines, eight have had naphthaline, and among these the one death occurred.

When the temperature rises high enough to make the daily average about 103°, antifebrin is given, either in large doses at long intervals, or in continuous doses of two grains every two hours during the day, and three grains every three hours during the night. Some patients have had two grains every hour during the day. In no case was any bad result noticed; on the contrary, the patients were quieter, slept better, and temperature, pulse, and general condition were much improved.

Whiskey is given when pulse, tongue, and condition indicate the need of stimulation, the amount varying from three to eight ounces during the twenty-four hours. Fluid extract of digitalis is added occasionally in small doses.

When there is insomnia, it is almost always relieved by morphine, generally given hypodermatically, as so many of

the patients have a greater or less tendency to vomiting. In a few cases the bromides, or urethan have been tried, but not with such good results as morphine. In cases of delirium with great restlessness, hyoscin hydrobromate, given hypodermatically in doses of one-hundredth of a grain, has been tried with very good effect. It has been followed by several hours of quiet sleep.

Diet is of milk, patients taking generally from four to five pints daily. If the stomach is at all irritable, milk with lime water, or peptonized milk is given. Some patients take beef tea well, and have from one to two pints of this daily in addition to the milk.

In a few cases nourishment by the rectum has been tried for short times, with the effect of relieving an irritable stomach. Laxative enemata are given every other day if patients have no movements from the bowels; and in almost all of our cases this has been necessary, as patients have been generally constipated, diarrhea being the exception rather than the rule, during the summer just passed.

Counting three cases not already entered in this report, as they were not here during Dr. Peabody's service, there have been thirty-one cases treated here since last April with eight deaths, a mortality per cent. of almost 26. This very high rate is to be explained partly by the fact that several patients entered late in the disease, and in very bad condition.

*St. Luke's Hospital.*—In Dr. Francis Kinnicutt's wards the treatment is essentially general and symptomatic. During the past several years, when it has been possible to establish the date of the beginning of the disease, occasionally one or more moderately large doses of calomel have been given in the first days of the fever, but never with

the result of aborting the disease. So many factors are involved, that it is difficult to give a trustworthy opinion in regard to the alleged power of calomel given at the inception of the disease, at least to influence favorably its subsequent course. Naphthaline, given in frequently repeated doses, to the amount of sixty grains daily, has also failed in any abortive effect.

Rest, quiet, fresh air, and a very carefully regulated diet of mixed liquid food constitute the general treatment. Increased fever and intestinal irritation frequently have been observed to follow the ingestion of large quantities of raw milk, and in such cases a reduced amount of peptonized milk has been given.

The symptomatic treatment may be summarized as follows: Urethan is considered by far the safest and most efficient hypnotic. Its not sufficiently well recognized antipyretic properties increase its value. It is given in doses of thirty to forty grains, repeated in an hour or two, if necessary, to relieve insomnia. Believing that excessive diarrhea has its source often in the presence of undigested food in a catarrhal inflammation of the bowel in addition to the specific lesion, the stools are carefully examined in such cases. The presence of curds demands a more careful regulation of the diet. A combination of naphthaline and bismuth has been found efficient in controlling the catarrhal inflammation and in correcting fetor.

Recognizing the fact that paralysis of the bowel and thereby obstinate constipation may proceed from a deep ulceration, laxatives are not given after the first week or ten days. Small enemata every other day are used to relieve constipation. Since the discovery of the new group of antipyretics, they

have been employed, almost to exclusion of baths in any form, to control what is believed to constitute harmful continuous pyrexia.

The general rule adopted is to give antipyretics only when the temperature reaches  $103^{\circ}$ . Kairin, hydrochinon, thallin, antipyrin, and antifebrin have been successively used and their effects very carefully observed. As the result, antifebrin is at present almost exclusively employed. Very exceptionally have any ill effects followed its use.

For combating heart failure, alcohol is chiefly relied upon. Where heart weakness proceeds from degeneration of muscle fibre, a minimum effect may be expected from any method of treatment; if failure is chiefly due to impaired nerve force or influence, which is more often the case, the use of alcohol gives the happiest results. Alcohol is rarely given in the early stages of the disease, very commonly in the third and fourth week. Many cases are treated throughout without its employment. Its use is restricted to combat special symptoms. Sir William Jenner's rule is largely the guide in its administration: "When in doubt in an individual case of typhoid fever, abstain from giving it; where there is a question of the larger or smaller dose, prescribe the latter."

Dr. Beverley Robinson's general treatment of typhoid fever is expectant; he does not believe that there is any known specific for this fever and is very doubtful as to the power of any drug, in use at the present time, to abort this disease. His treatment naturally depends upon the stage of the malady at the time it comes under his care, and whether it has a tolerably mild course without complications, or whether the disease from the beginning is marked by more than ordinary severity and is accompanied by manifest departures

from what is usual, and the complications indicate special severity of the attack, or march of the affection.

The cases of typhoid fever which he has treated during several years past, have been, as a rule, of moderate severity. Diarrhea has been very frequent, temperature rarely going beyond  $104^{\circ}$  at any time, and then only during brief periods, heart complications have been occasional, pneumonia rare, and nervous symptoms showing either ataxia, or great adynamia, in relatively few instances; he recalls not more than three or four cases of intestinal hemorrhage.

In the incipient stage of typhoid fever a mild saline cathartic preceded by one or two grains of calomel, or double that quantity of blue mass, is prescribed. Later, and so long as the development of typhoid fever appears doubtful, small doses of aconite, ammonia, and spirit of Mindererus, or neutral mixture, are the means he employs to subdue febrile excitement. If fever still continues, with marked elevation of temperature in the afternoon after a few days, and other symptoms point more surely toward the typhoid state, these agents are abandoned for tonic doses of quinine, milk diet, which is insisted upon, and occasional tepid sponging of the trunk and limbs with lukewarm water and vinegar. Complications are treated as they arise, bronchitis, or pneumonia with tincture of iodine, turpentine stupes, or Corson's paint to the chest walls; chloride of ammonium, moderate doses of digitalis, and moderate stimulation with whiskey internally. If the heart becomes irregular or notably weak and frequent, or a blowing murmur shows itself at the apex, he now orders tincture of strophanthus in five-drop doses every six hours, besides using mustard poultices or dry cups to the chest, and beginning, continuing, or

increasing the alcoholic stimulant. Nervous derangements are influenced favorably by ether in the form of perles, by musk, or by a mixture of lavender, chloroform, ammonia, and camphor. Hemorrhage is controlled with turpentine and opium. High temperature is controlled by antifebrin in five-grain doses, repeated two, or more times, in the twenty-four hours, or whenever the body temperature goes beyond  $103^{\circ}$  Fah. in the axilla.

The diet is usually limited to milk during the duration of the fever. This is given to the patient every two hours, as much as he will drink; nausea, or disgust for food, being to some extent relieved by the addition to the milk of lime water, Vichy, or Vals water, or by the alcoholic stimulant administered at the time. If nausea persists and the patient becomes very weak and prostrate, dry champagne is given frequently in small doses. Occasionally, black coffee has worked wonders in bringing back to life patients who appeared almost moribund. Solid food, as a rule, is not allowed until all febrile reaction has been absent at least one to two weeks. When begun, he is now using with favorable results what is known as albumenoid food, which seems to be tolerated by the stomach and bowels more readily than beef peptonoids of a somewhat similar character. At a latter period, if the albumenoid food and the beef peptonoids have been well supported, and, especially, if no recurrence of the fever take place, farinaceous food is permitted and a small quantity of the light meats once a day.

In very few patients has he found the necessity at any time to treat their febrile condition by means of systematic cold bathing, and he regards this treatment as ill-adapted to the large majority of typhoid fever cases met with in New



York City, either in hospital, or private practice. Whenever hypostasis of the lungs involves these organs in a considerable degree, he believes frequent inhalations of oxygen gas to be a measure of great practical utility in giving to patients some additional chances of preserving life otherwise imminently imperilled.

*The Massachusetts General Hospital.*

—The plan of treatment of typhoid fever carried out in Dr. Frederick C. Shattuck's wards has again become chiefly a symptomatic one. This summer he tried in six or eight cases the administration of naphthaline, eighty grains a day in divided doses, ten grains of calomel being given immediately on admission to the ward. It has been claimed by some that early cases may sometimes be aborted in this way. One patient thus treated, presenting the important early symptoms, recovered in three or four days; and so did another who received no medicine whatever.

Among the points in connection with typhoid fever in regard to which we are still very ignorant is the question of fact. Does the disease ever abort spontaneously, or in consequence of treatment? Dr. Shattuck gave up the naphthaline treatment, because he could not see that in cases in which it received a thorough trial it was productive of any good result, while in two cases it caused strangury, in one other hæmaturia.

This year he has also discontinued the systematic use of internal antipyretics, ordering them only when the temperature is very high and the patient very restless, or, in his judgment, suffering in some other way directly from the effects of the temperature. These indications are seldom present.

Diet. Six ounces of milk are given every two hours. If this is not well borne lime water is added, or the milk

is peptonized; or, if there is no diarrhea, animal broths are allowed. When the evening temperature reaches the normal point, patients who have been on an exclusive milk diet are given broths, then raw eggs, then light farinaceous articles, and meat is permitted toward or at the end of the first week of convalescence. Stimulants are given in such quantities as the pulse, the tongue, and the nervous symptoms may seem to demand.

In cases characterized by constipation, a large percentage the past two years, a plain water enema is given every second day. For sleeplessness and diarrhea opium is the main reliance. In intestinal hemorrhage opium is given in sufficient quantity to narcotize the patient, stimulants are used according to the pulse, and ergotine is injected under the skin. To moderate the temperature, stimulate the nervous centres, and promote the comfort of the patient, he is sponged with water at a temperature of 60°–75°, every two hours if the temperature is 103° or more; every three, four, or six hours, according to circumstances if it be below that figure. Sometimes alcohol, or alcohol and water, is substituted for the plain water baths once or twice a day.

It will be seen by the above that the aim in treatment is simply to conduct the patient to recovery, safely and as speedily as is compatible with safety. A certain percentage of patients receive neither drugs nor stimulants, a certain proportion stimulants only, and a certain proportion both drugs and stimulants.

Dr. R. H. Fitz, during the past summer made a few attempts in his ward to test the asserted value of naphthaline in checking or overcoming the progress of typhoid fever. The remedy was used in three-grain doses, every two



hours during the first week of the fever. There was no evidence that any benefit resulted.

Although given in capsules, nauseating eructations were, at times, complained of, and the size of the capsule was inconvenient. The disadvantages being conspicuous, without any evident corresponding gain, the use of the naphthaline was soon discontinued.

Of the newly discovered antipyretic drugs, antifebrin was the one usually employed when there were special indications for their use. The artificial maintenance of a low range of temperature throughout the course of the disease was not deemed important. If an elevation of 105° F. was reached, a sufficient quantity of antifebrin was given to lower the temperature four or five degrees. The production of chilly sensations was considered undesirable. A single dose of five grains often sufficed. If necessary, this dose was repeated at intervals of an hour until fifteen grains were taken. Doses of three grains were found of great benefit in relieving the headache so frequently occurring in typhoid fever. There was no necessarily simultaneous falling of the temperature.

The routine treatment of all cases consisted in a carefully regulated diet and the use of cold sponge baths every two hours. The diet was chiefly milk, as nearly four ounces every two hours as possible. If the milk was not well borne, it was pancreatized or mixed with lime water. The use of the exclusively milk diet was maintained until the temperature remained normal for at least a week. Beef tea, strained soups and broth were then added, and, in the course of three or four days, soft puddings, eggs, and bread.

In the third week of normal temperature there was no restriction as to diet,

with the exception that the most nourishing and easiest digested foods were ordered.

Wine or brandy was given after the first week whenever a weak pulse or excessive nervous debility was present.

Dover's powder or morphine urethan, and chloral were used as hypnotics, the former, where sleeplessness was accompanied with pain, the latter, where pain was absent.

Constipation was a frequent symptom, and was invariably relieved by enemata as often as once in three days. In one case, irrigation of the colon, twice daily, became necessary. During convalescence a change of diet was often an efficient means of insuring a normal evacuation.

Profuse diarrhea was controlled by liquid preparations of opium, and intestinal hemorrhage was checked by ten minims of laudanum every two hours.

*The Montreal General Hospital.*—The cases of typhoid fever treated in Dr. George Ross's ward include a larger proportion of severe and very severe than perhaps elsewhere—the reason being that, owing to the great prevalence of the disease in Montreal at certain seasons, and to the limited accommodation, it is a necessity to refuse a considerable number and receive only those most urgently requiring care. If we come, therefore, to look at the mortality, this important fact must be borne in mind. Here, any method of treatment which will give results approaching the average in other places, must deserve confidence, seeing that we deal with carefully selected bad cases.

The treatment is based upon what might be called an "intelligent expectancy." The diet is composed exclusively of milk and rice water. The amount of milk consumed daily is not considered immaterial. It is not deemed

prudent to allow, as is often elsewhere done, milk *ad libitum*. On the contrary, the daily quantity is strictly limited, in the case of adults, to three pints *per diem*. This amount is found sufficient to meet the wants of the economy, whilst the ingestion of more leads to the danger of accumulation of feces and aggravation of symptoms. The milk is frequently diluted with rice water, or, if thought well, with lime water. When the stomach is weak, benefit is obtained by artificial digestion of the milk, but the great majority drink pure milk and appear to assimilate it without difficulty. It is a rule to nurses to supply cold fresh water or ice water to typhoid patients freely, and, during the height of the fever, pellets of ice to suck. When a patient is delirious or unable to make known his wants, he is still to have cold water given him frequently and freely. It is believed that strict attention to this apparently simple item is really a matter of considerable importance. It is a fixed rule to allow no change from a milk diet until the patient's temperature has been normal both night and morning for at least eight consecutive days. During the early stages, and until a material fall in the temperature has taken place, cold sponging of the entire body is carried out every three or four hours, as the case may require; and constant cold is applied to the head by means of a coil through which ice water flows. These measures are relaxed as the temperature falls and the symptoms improve.

In mild cases, or even in those of moderate severity but running a course approaching to the type, alcoholic stimulants are not given, except in small quantities during the later stages; but in all those showing a higher grade of fever, as marked by an elevated temperature and signs of vital depression,

whiskey and brandy are employed in amounts varying with the special indications of the case. When the prostration is marked, and the nervous symptoms severe, stimulants are given freely.

As regards medicines, a favorite prescription is one containing gtt. ij each of acid. carbolic. pur. and tinct. iodini., well diluted in water every two hours. It is a rare occurrence to meet with discolored urine from this remedy. No striking results follow its administration. In the latter stages, quinine in tonic doses, with or without digitalis, is given. When a case is seen sufficiently early, a full purgative dose of calomel is found to be useful in unloading the *primæ viæ* and preparing for the siege. We find a large proportion of our patients constipated rather than suffering from diarrhea. The bowels are never allowed to remain quiescent for more than three days at most. More generally two days only are allowed between evacuations, which, if necessary, are obtained by means of enemata. These are greatly preferred to laxative medicines. In approaching convalescence, great caution is exercised in administering a purgative, since rapid elevation would seem sometimes to follow directly after even a dose of castor oil. The presence of prominent symptoms often leads to the medicinal treatment being, for the time, entirely directed toward counteracting them. For instance, if there be marked gastric irritability, bismuth, bicarbonate of soda, and such like drugs, with effervescents, are given. If the case be especially marked by bronchitis and pulmonary congestion, turpentine in emulsion is relied upon. If tympanites be considerable charcoal is found very useful, sometimes turpentine, together with limitation of the food for a time, and attention to the bowels. If muscular

tremor, delirium, and insomnia are a marked feature, such remedies as camphor, valerian, and ammonia are given at frequent intervals. Of the complications, hemorrhage is treated by ice, gallic acid, digitalis, or lead and opium, and the external application of an ice-bag. In peritonitis (without perforation) opium is given in moderate doses, and without any bad effects. When perforation is known to have occurred, hypodermatic injection of morphia and hot applications.

The use of quinine in antipyretic doses, during the active stages of fever, has been entirely abandoned. In some of those unaccountable "excursions" of the temperature which we are apt to witness during commencing convalescence, full doses of quinine are used with very good effect. Of other antipyretics, antifebrine has had a moderate trial in this disease, by some members of the staff. The conclusion arrived at seems to be that the sudden depressions of temperature produced by the drug do not in any way modify the course of the fever, which only subsides at the same time as if this had not been employed. In some cases, decided antipyretic action could not be obtained from it. In others, its ill effects, cyanosis and cardiac depression, were witnessed, but not to an alarming degree. —*Medical News.*

#### Mixtures for the Treatment of Rheumatism.

DR. J. M. CHAPLIN, of Bowling Green, Ohio, writes to us recommending the following formulæ :

1. *For Acute Rheumatism.*—Salicylic acid (from oil of wintergreen), 4 drams ; sodium bicarbonate, 5 drams ; peppermint water, 4 ounces ; potassium citrate, 2 drams ; wine of colchicum seed, 4 drams ; syrup to 8 ounces. Half a tablespoonful every three or four hours.

2. *For Sub-Acute Rheumatism.*—Potassium citrate, 1 dram ; essence of lemon, 3 drams ; syrup, 2 ounces ; tincture of chloride of iron, 3 drams ; water to 4 ounces. A teaspoonful, diluted with water, to be given every four hours.

When malarial poisoning is suspected, Dr. Chaplin adds about half a dram of liquor potassii arsenitis to either mixture.—*N. Y. Medical Journal.*

#### Chronic Muscular Rheumatism.

FOR a woman with chronic muscular rheumatism of the arm, Prof. Da Costa ordered the following remedies : Internally, fifteen-grain doses of muriate of ammonia, and, externally, a liniment containing : R. Aquæ ammon., f ʒ j ; spirit. rosmarini, f ʒ ij ; lin. saponis, f ʒ iij. M. Rub the part well.—*Coll. and Clin. Record.*

#### Ventilation of the Beds of the Sick.

DR. MORRILL WYMAN, of Cambridge, Mass., writes as follows to the *Lancet* :

In the Cambridge (Mass.) Hospital there is an arrangement for the ventilation of the beds not generally known ; it is so effective that I wish to describe it. Beneath each bed is a ventilating tube of about eight inches diameter, fifty square inches area, leading directly through the floor to a foul-air trunk, beneath which it communicates with the main ventilating chimney. About 2,000 cubic feet of air an hour is thus drawn from beneath each bed. This ventilating tube is connected with the bed above by a four-inch pipe of tinned plate, with a proper cover and joints, which passes around the side or foot of the bed and into it beneath the clothing. This pipe is lengthened with one of the same size of pasteboard or other substance, a non-conductor of heat, reaching to any part of the bed. By this simple means foul air is removed as

fast as formed, the bed kept free from odor, and the patient's body is no longer surrounded with contaminating gases. As the air presses inward through the porous bed-clothing none escapes into the ward. Further, a two-inch flexible pipe is adjusted to that just described, and slipped over the hollow handle of the bed-pan when in use, carrying off odor from that also. In the same hospital similar means connect the beds in the private wards with the chimney of an ordinary fire-place, up which the pipe reaches about four feet to insure a good draught with a moderate fire; the part in the chimney is of black iron. The advantages of such an arrangement in cases of sloughs, foul ulcers, cancers, and in fevers with frequent fæcal dejections, are obvious. It may be supposed that the passage of air through the bed would cool it too much. Practically it does not; probably the quantity of air passing is about the same as in beds ordinarily at the same temperature of the room, but in a different direction.—*N. Y. Medical Journal*.

#### **Sour Milk and Buttermilk in the Nutrition of Invalids and Others.**

As the result of an extensive experience in rural practice, Dr. DEMUTH (*Vereinsblatt d. pfälz Aerzte*) extols sour and buttermilk as cheap, effective and easily assimilable nutritive agents. Both are easily digested on account of the finely divided condition of the casein and the presence of acids. For infants the following is especially recommended: one quart of buttermilk boiled with one tablespoonful of wheat flour to the consistency of thin pap.

Buttermilk is useful in all cases where a milk-cure is indicated, and is particularly to be recommended in consumption. Sour milk has shown itself valuable in scrofulosis, neurasthenia, hypo-

chondriasis, in convalescence, in diseases of the organs of respiration and deglutition, chronic catarrh of the air passages, nervous disturbances following excessive or exclusive meat diet, dropsy, albuminuria, and Bright's disease. It is also useful in diabetes mellitus. Both forms of milk are efficacious in chronic metallic poisoning, and inflammatory and febrile conditions, especially in typhoid fever. They are contra-indicated in all ulcerous processes in the alimentary tract—a fact not always considered in ulcer of the stomach, ulcerating cancer, and tuberculous ulceration of the intestines—and dilated stomach.—*Med. & Sur. Reporter*.

#### **Hot Baths, Hot Packs, and Pilocarpine Compared.**

DR. ZELENETSKI, of St. Petersburg, in order to examine the comparative effects of hot baths, pilocarpine, and hot wet-sheet packing on nephritis, treated the same patients on different days by means of each of these methods, observing the effects on the temperature, pulse, etc. Fifty-seven observations were made on seven patients who were as nearly as possible under identical conditions. Twenty-three baths, eighteen hypodermic injections of pilocarpine, and fifteen hot packs were given. The hot baths produced the greatest loss of weight, averaging 801 grams, and the packing the least, averaging 94 grams, pilocarpine producing effects of an intermediate character. Here the mean loss of weight was 514 grams—306 by perspiration and 208 by salivation. The temperature rose considerably after the baths, and even at the end of three hours was always above normal. The packing caused it to fall at first; but after an hour it rose and returned to its original height within three hours. With pilocarpine it was



reduced for two hours, and then rose to normal. The pulse corresponded to the temperature with the baths, but became slower with both packs and pilocarpine. The patients expressed themselves as feeling the most improvement after the baths; the pilocarpine causing complications, headache and nausea, in one case vomiting and collapse.—*Lancet*.

#### Lotion for Gouty Joint.

DR. ROTHE (*Memorabilien*) speaks highly of the following solution in an attack of acute gout: *Liquor plumbi acetat.*, 15 parts; *spiritus vini*, 25 parts; *tr. oppii ammoniat.*, 5 parts; *aq. font.* 300 parts. Having first used frequent cold douches, he applies compresses wet with the above solution and covered with mackintosh. The treatment gives great relief from pain, and shortens the attack.—*Medical and Surgical Reporter*.

#### An Absorbent for Pleuritic Effusions.

SVETUKHIN recently introduced an alkaline mercurial soap called *sapokalinus hydrargyrosus* as a powerful absorbent of pleuritic effusions. The soap is prepared by mixing metallic mercury, *unguentum hydrargyri*, caustic potash, and olive oil, so that the preparation contains one-third of its weight of mercury. This is agitated in hot water so as to form a good froth, and lightly rubbed into the skin. This soap has the advantage over *ungt. hydrarg.* in being much more easily rubbed in, in not irritating the skin and thus causing eruptions, and, lastly, in not so rapidly causing stomatitis or salivation. One-half to one dram is used for one inunction, twenty of which usually suffice to remove the effusion.—*Russkaya Meditsina*.—*World's Med. Review*.

#### Condensed Beef in Tablets.

CONDENSED beef in tablets is being introduced into French practice under

the name of *tablettes Rousseau*. Each tablet contains 20 grammes (about 5 drams) of beef powder, representing 80 grammes of fresh beef. According to the author, this preparation soon makes chlorotic and cachectic patients able to digest other kinds of nourishment easily.—*American Druggist*.

#### Elegant Mouth-Wash.

EDINA sends a sample of a mouth-wash, half a tea-spoonful of which in a wineglassful of water is used to refresh the mouth. It is a pale crimson and transparent solution, with the odor of oil of wintergreen. Its composition is fairly represented by the following formula: Oil of wintergreen, 3 j; oil of peppermint, ℥xv; rose-aniline hydrochlorate (or magenta), gr. ss; water, 3 ss; glycerine, 3 iij; rectified spirit to Oj. Dissolve the oils in the spirit, and the rose-aniline in the water; mix the latter solution with the glycerine, and pour it into the perfumed spirit. Mix.—*Chemist and Druggist*.

#### Hippurate of Lime.

THIS remedy is recommended by Poulet in catarrhal affections of the mucous membranes, particularly of the genito-urinary tract. In cystitis, regardless of its cause or nature, the remedy is said to be very beneficial. Chronic hepatitis, congestion of the liver, catarrhal jaundice and the long list of gouty and rheumatic affections and dyspepsias of inflammatory origin, also furnish indications for its use, and in some of these it is singularly useful. The following is a convenient formula for its exhibition: Pure hippuric acid, 100 grammes; lime water, q. s.; warm water, 2 litres; sugar, 5 pounds; essence of lemon, 15 grammes. Add the lime water and acid to the water heated to 80°, trying from time to time until com-



plete alkaline reaction is obtained ; then add sugar and the flavor, and melt on a slow fire. Two tablespoonfuls of this may be given in water half an hour before each meal.

#### An Idiosyncrasy with Regard to Antipyrine.

DR. W. A. STURGE writes as follows in the *British Medical Journal*: A member of my family liable to migraine was attacked in the ordinary way a few days ago, and I administered for the first time a dose of five grains of antipyrine in powder, with the following curious result: Five minutes after taking it, the "deadly sickness" which was previously present seemed to give way, and an "expanding sensation" was felt, rising from the stomach upward. Almost immediately she sneezed violently for about twenty times running without pause. The face and eyes became deeply suffused; tears began to flow; quantities of mucus flowed from the nose; the breathing became hard and labored, accompanied by a feeling of suffocation; there was complete inability to lie down. A violent cough slowly came on, and large quantities of mucus were expectorated; at the same time there was very profuse sweating. After these phenomena had lasted for about half an hour, intense itching was felt on the insides of both thighs, and on examination there was found a thick outcrop of urticaria, which soon extended on to the abdomen. There was also a strong coppery taste in the mouth—not continuing, but coming on in violent bouts—and an equally strong smell of the same metallic nature, also intermittent. There was loud singing in the ears, which felt intensely congested. The pulse was quick and very full. After the symptoms had lasted about three quarters of an hour from the commencement, they gradually disappeared, some tightness at the chest

and running at the nose remaining for four or five hours longer. The sickness accompanying the migraine disappeared completely as soon as the drug had begun to work; the headache also disappeared for a time, but came back slightly about four hours afterward.—*N. Y. Medical Journal*.

#### DISEASES OF THE NERVOUS SYSTEM.

##### Insanity Following the Use of Anæsthetics in Operations.

DR. GEORGE H. SAVAGE, lecturer on Mental Diseases at Guy's Hospital, London, says (*British Med. Journal*), all writers and observers have noticed that one cause alone is very rarely efficient for the production of any attack of insanity, and that usually there are several predisposing causes which may have been in operation for a long time, as well as one or more exciting causes which may have been in action for much shorter periods. To make his own opinion clear, he states the following propositions: (1) The most common form of mental disorder that comes on in such cases is of the type of acute delirious mania; (2) though such mental disorder is generally of a temporary character, it may pass into chronic weak mindedness, or it may pass into (3) progressive dementia, which cannot be distinguished from general paralysis of the insane. The author then reports cases in which alcohol; acute diseases such as scarlet fever, measles, and pneumonia; and in one case a toxic dose of belladonna, seemed to be the immediate exciting cause of an outbreak of acute insanity. All of these patients were predisposed to nervous affections. Coming to the more immediate subject of his paper, he reports several cases in which the administration of an anæsthetic seemed to him to be the imme-

diate cause of insanity. The following is one of the cases, which was communicated to him by Dr. H. Selfe Bennett :

The patient was a young married woman, mother of one child aged ten years, at whose birth transfusion had to be performed and stimulants largely ordered. This patient used to send to the doctor from time to time for hysterical attacks. He found that these were due to alcohol. After three years of medical care she was found to have developed into a chronic drinker. She never had delirium tremens, or any other severe attacks beyond the hysteria (which, by the way, is not uncommon in such conditions). One night the doctor was sent for, to find the patient delirious, conjunctivæ insensible, urine and fæces passed involuntarily; irregular movements of all kinds were being made, and speech was incessant. It was found that she had been as usual in the morning, and had gone to the dentist to have some teeth extracted. Nitrous oxide was used for this purpose, and the outbreak followed rapidly on this. She never regained her senses or recognized her friends. She was in a state of delirious mania for three weeks, then settled into dementia, in which she remains, silly and fat. The points in this case are the acquired nervous instability, the acute delirious mania, with its consecutive dementia, following in a few hours the use of nitrous oxide.

He also refers to several cases of insanity which have followed ovariectomy; but admits that there is at present no evidence to connect insanity in these cases with the administration of an anæsthetic. He concludes his paper by remarking that one or two practical questions arise for the surgeon, one of the most important being whether neurotic inheritance or neurosis in the individual, as proved by previous attacks of in-

sanity, should in any way affect the prognosis in operations, and to what degree it should interfere with operations of convenience not essential for the prolonging or saving of life.—*Med. and Surg. Reporter.*

#### Chloroform and the Constant Current in Neuralgia.

PROFESSOR ADAMKIEWICZ says he has obtained marvellous results from the combined action of chloroform and the constant current in facial and other forms of neuralgia. The electrode is made of hollow charcoal into which the chloroform is introduced, and from which the current sends it into the tissues. That this power of penetration may be thus obtained is thought to be shown in the fact that when chloroform is colored with gentian violet and applied in the manner described to the ear of a rabbit, the tissue becomes dyed. In the experiments with the human subject, the writer notes, at the commencement, the triple action of the constant current, the chloroform and a condition of cataphoresis followed by a burning sensation and, finally, anæsthesia. Several remarkable cases of cure are cited. Anæsthesia was not obtained when the nerves were deep seated, nor in sciatica.—*Progrès Médical.*

#### On the Limitations of the So-called "Wier Mitchell" Treatment.

IN the *Lancet*, January 7, 1888, Professor W. S. PLAYFAIR, who was the first to advocate the Wier-Mitchell treatment in England, and who speaks of it as "the greatest advance of which practical medicine can boast within the last quarter of a century," publishes a communication, in which he endeavors to state the limitations of this method of treatment, and the precautions which should be taken in the selection of cases in which it is to be applied.

1. In the first place he lays down the rule, which he thinks is subject possibly to a few rare exceptions, that it is unsuited to any form of organic disease. Such a disease is locomotor ataxia. He admits that there are cases of obscure spinal disease in which it is almost impossible to tell whether the disease is functional or organic, and will even go so far as to say that there are some cases of this kind whose nature can only be solved by submitting them to the test of this treatment. He advises that the practitioner, when in doubt, should consult a specialist in nervous diseases before treatment.

2. In the second place, care should be taken never to apply this treatment to any marked case of mental disease. He thinks this method has often been attempted in cases of pronounced melancholia and other types of chronic insanity, in which it cannot possibly do any good, and in which it may do much harm. Strong pressure is often brought to bear by relatives and friends to have a case pronounced "hysterical," because they cannot bring themselves to face the fact that it is mental.

3. In this third place, he strongly urges every one contemplating the treatment of a case in this way, either to do it thoroughly and well or not to do it at all. He thinks that many hopeful cases have been spoiled because the practitioner tries the method "in a modified way," the modification generally consisting in treating the patient in her own house, or in admitting the visits of friends, or allowing the patient to get up and go out during treatment. Increasing experience has convinced him that thoroughness and completeness are absolutely essential, and should be considered a *sine qua non*. If they are neglected, failure may most certainly be predicted.—*Med. and Surg. Reporter*.

#### Contribution to the Etiology of Neuralgia.

IN the *Edinburgh Med. Journal*, Mr. JAMES R. WHITEHALL says there are many conditions classed under the heading neuralgia. There is the pure form, with no apparent and definite cause during life, and leaving no discoverable lesion after death; the reflex form, which may be, and frequently is, due to dental caries and other remote causes, the removal of which gives speedy relief to the symptoms. Then, again, there are other forms due to an actual inflammation of the nerve—a true neuritis and not a neuralgia at all; others due to poisons circulating in the blood, such as lead, the poison of syphilis, gout and malaria, and some to pressure upon the trunk of the affected nerve, or to an irritation still higher in the course of the nerve. In the pure form of neuralgia, where there is no apparent cause except the debility so frequently associated with it the author thinks it is impossible to distinguish during the attack these three different kinds of pain: First, a more or less continuous throbbing pain; second, a sharp, lightning-like pain, succeeded frequently by a burning or tingling sensation; third, a superficial cutaneous hyperæsthesia, the "points douloureux" of Valleix. The throbbing pain he attributes to a dilatation of the vessels of the nerves themselves; the sharp, lightning-like pain to a more acute compression of the nerve, brought about by a sudden alteration in the blood pressure, or an increased dilatation of the already dilated blood-vessels, perhaps from such slight causes that they usually escape notice. With regard to the production of the tender spots of Valleix, the explanation is ingenious. As the nerve, he says, passes on its course, it gives off filaments to the surrounding parts, and these filaments come off from the main trunk in a definite order from without

inwards ; therefore the most superficial filaments of a nerve-trunk are those which supply the tissues in the immediate vicinity, But it is these very filaments which suffer most when a nerve is compressed in the osseous or other canal; and therefore by the law of eccentric projection there is a hyperæsthesia in the parts supplied by those filaments—in fact, a tender spot. And since these filaments suffer most, it is not at all unlikely that, as the attack progresses, the prolonged pressure would temporarily destroy their function and cause local anæsthesia; and this is exactly what occurs—hyperæsthesia being more likely to occur at the earlier part of an attack, and anæsthesia later.

He considers the treatment of neuralgia under three headings, namely: 1, external local; 2, external remote; 3, internal.

1. Of the local methods of treatment, such operative methods as incision and division of the nerve sufficiently explain themselves. Stretching the nerve and acupuncture seem to act in the same way, probably by causing a solution of continuity in the sheath, and thus relieving tension, and diminishing the swelling of the nerve. As regards stretching, however, Callender considers that "it is probable that the stretching is of use by numbing the nerve for a short time." If this be really true, the natural explanation would be that the sensory irritation resulting from the hyperæmia would for a time cease, and on its cessation the reflex dilatation of the blood vessels would also be brought to an end. Electricity, again, in common with belladonna and heat or cold locally applied would contract blood vessels. Belladonna, volatile oils and their stearoptenes (solid crystalline compounds separable from volatile oils by cold), such as thymol and menthol, also chloroform, not only con-

tract the blood vessels, but also diminish the sensibility of the part, while aconite locally applied acts purely as an anodyne.

2. Of the external and remote methods of treatments, counter-irritation over the upper part of the dorsal spine, which apparently does good in some cases, must be mentioned, though perhaps somewhat difficult to explain, unless possibly it has some action on the sympathetic vaso-motor fibres which emerge from the cord about this level in the anterior roots of the lower cervical and upper dorsal nerves (Foster). Ligature of the carotid is an eminently successful, though somewhat heroic treatment, and has been very successfully employed by Dr. Patruban in many cases of severe neuralgia—this, of course, acting directly on the blood vessels, the idea of the operation having originated from the relief obtained in some cases by simple pressure on the carotid.

3. Of the internal treatment of neuralgia the substances used fall naturally into four groups: 1. Those which contract blood-vessels, such as strychnia, atropia, and its allies, bromide of camphor, digitalis, ergot, volatile oils, such as turpentine, chloride of ammonium and quinine, though certain of these also have a specific action on sensory nerves in addition. 2. A second group consists of bodies which act as general tonics, such as quinine, iron, strychnia, phosphorus and arsenic. The experience, however, of arsenic and phosphorus seems to indicate that they have some more direct action than simple tonics. 3. A third group consists of simple anodynes or sedatives, such as bromide of potassium. This, however, like chloral, diminishes the pulse tension, and in addition diminishes reflex excitability by depression of the peripheral sensory filaments. Other drugs, such as cannabis



indica and morphia, seem to act as simple anodynes. 4. The fourth group consists of the usual tell-tale drugs, which are always appearing, and of the action of which no very apparent explanation can be given. Amongst these gelsemium sempervirens is a prominent member, and probably also arsenic and phosphorus. He concludes by saying that there are, then, symptomatic, pathological, etiological, and therapeutic reasons for believing that the blood-vessels are at fault in cases of neuralgia, and therefore, on this view, it seems necessary to consider true neuralgia as a sympathetic neurosis, affecting certain tracts of cerebro-spinal nerves, resulting in simple dilatation of the vessels of these nerves, brought about by unknown causes, or by reflex irritation, or possibly by the specific action of certain poisons in the blood.—*Medical and Surgical Reporter.*

### DIGESTIVE TRACT.

#### Chronic Constipation.

THE following prescription has been used with favorable results in general constipation among the patients of the out-door department of Jefferson Hospital:  $\mathcal{R}$ .—Ext. cascarae fluid; ext. glycyrrhizae fluid,  $\text{āā f } \frac{3}{4}$  j. M. Sig.—Teaspoonful at bedtime.

Professor Bartholow used for a long time a 5 per cent. solution of carbolic acid in a case of epithelioma, injected hypodermatically two or three times a week; not curing but preventing further growth after two surgical operations had failed.—*Coll. and Clin. Record.*

#### Gastro-Intestinal Catarrh.

FOR a case of gastro-intestinal catarrh, Professor Da Costa ordered broth diet and a prescription containing:  $\mathcal{R}$ . Bismuth. subnit., gr. x; pulv. aromatic., gr. iij; pulv. opii, gr.  $\frac{1}{4}$ . Ft. chart. j. M. Sig.—Take four times a day.

#### Indigestion.

DR. JOHN SPECHT gives the following prescriptions for the treatment of indigestion (adults):  $\mathcal{R}$ .—Bismuthi subnitrat,  $\frac{3}{4}$  j; pepsin,  $\frac{3}{4}$  j; quiniæ sulphat., grs. xxx. Mix et div. in pulveres No. xii. Sig.—One powder stirred in a glass of wine one half-hour before meals.

Indigestion (infants): An enema to open the bowels, after which give— $\mathcal{R}$ .—Tinct. opii. deod.,  $\mathfrak{M}$  xii; elix. calisayæ, bismuthi et pepsinæ,  $\frac{3}{4}$  ij. Sig.—One teaspoonful every four hours.

The tincture of opium may be left out if there is little pain.—*Northw. Lancet.*

#### For Tapeworm.

BETTLEHEIM (*Cen. f. Klin. Med.*) recommends the following. The pills are coated with keratin, which is insoluble in acids, and therefore, they pass through the stomach undissolved to find in the alkaline secretions of the intestines their solvent. Nausea and vomiting are thus guarded against, besides the securing of the direct action of the drugs.  $\mathcal{R}$ .—Ext. filicis macis ætheris, gr. 150; ext. pumicæ granati., gr. 150; pulveris jalapæ, gr. 45. M.—Div. in pil. No. 70.

Before giving, a free catharsis must be induced. Twenty of the pills are to be taken on the day following the purge (during which the patient must fast) and the remainder on the next day in two or three hours.—*Ibid.*

### DISEASES OF CIRCULATORY ORGANS.

#### Aspirating the Heart.

M. BUDIN thinks that puncturing the heart is practicable and not dangerous in the majority of cases, and that it is destined especially to remedy the dilatation of the right heart when there is no organic lesion. He recommends that the aspirating needle should be inserted in the third intercostal space



on the right side, and close up to the edge of the sternum in aspirating the auricular cavity. When the ventricle is to be aspirated, the needle should enter the fourth intercostal space on the left side close to the left edge of the sternum. Puncture of the ventricle should be preferred, as the cardiac wall is much thicker and less prone to tear, and thus exposes less to hemorrhage into the pericardium. Cardiocentesis acts as a depleter of the right heart, and might give great relief to a distended heart.—*Medical and Surgical Reporter.*

#### Subcutaneous Injection of Table-Salt in Weak Heart.

DR. LEON ROSEBUSCH, of Lemburg, reports a most favorable experience in the use of chloride of sodium by subcutaneous injections in cases marked by danger of failing circulation.

He was led to the practice by the experiments of Cautui, who, in cases of cholera, injected subcutaneously from fifteen to forty-five ounces of a solution composed of four parts chloride of sodium, three parts of carbonate sodium and one thousand parts of distilled water, with evident advantage.

The author uses this, or an injection of simular composition, in low forms of pneumonia, typhoid fever, chronic nephritis, and all forms of severe hemorrhage.

The following is the *résumé* by the author of the indications for injection and the amounts to be used:

1. Sudden collapse (five to eight drams of a six-per cent solution).
2. Paresis of the heart muscles from any acute disease (five to eight drams at once, and then one to two drams daily).
3. Acute gastro-enteritis, great weakness after severe vomiting and diarrhea (eight to twenty ounces of a tepid solution of six per thousand).

4. Hemorrhage from the lungs, stomach, or bowels (five drams, then one and a half drams daily).

5. Heart failure in consequence of chronic disease and cachectic conditions (one and a half drams daily for several days.)—*Internat. Clin. Rundschau.*

#### Caffeine in Heart and Kidney Diseases.

A QUESTION addressed to the *Revue de Clinique et de Thérapeutique*, concerning caffeine, elicits the following answer: Huchard recommends the alkaloid as a powerful diuretic (and consequently a true cardiac tonic) in the later stages of heart troubles. According to his ideas, it should be used in solution in preference to any other pharmaceutical form, and he suggests the following formulæ as applicable (the first as a simple solution and the second as a syrup): Benzoate of sodium, caffeine, of each 1 part; distilled water, 30 parts. The dose is from 2 to 6 table-spoonsful during the course of the day.

Benzoate of sodium, caffeine, of each 35 parts; raspberry syrup, 2500 parts; dose as above. One great advantage, says Huchard, which caffeine possesses over digitalis or the alkaloid of that drug, is that it can be administered hypodermically. For use in this manner he has devised the following formula: Sodium benzoate, 3 parts; caffeine, 2.5 parts; distilled water (hot) 6 parts. From 1 to 4 syringefuls daily.

If for any reason the sodium benzoate is not desirable, it may be supplanted by sodium salicylate, thus: Sodium salicylate 3 parts; caffeine, 4 parts; distilled water (hot) 6 parts; dose as in the foregoing. These preparations are most valuable, not only in heart diseases, but in affections of the kidney, especially where digitalis is contra-indicated. Subcutaneously administered, caffeine has a general stimulant and tonic action, and

consequently is valuable in almost all adynamic affections, and infectious diseases complicating or complicated by kidney or heart trouble. It may be used exactly as ether under such circumstances. Finally, the author recommends the following wine of caffeine:  $\mathcal{R}$  Sodium benzoate, caffeine, of each 5 parts; Malaga wine, 500 parts; dose a half wine-glassful occasionally.—*St. Louis Medical and Surgical Reporter*.

## DISEASES OF RESPIRATORY ORGANS.

### The Treatment of Laryngeal Phthisis in the Stage of Ulceration.

ASTIER gathers the following methods of treatment:

1. For pain: Ext. opii; ext. belladonnæ,  $\text{āā}$  gr. 8. Dissolve in aqua lauro-cerasi, 3 5. Used locally.

Insufflations of  $\frac{1}{10}$  of a grain of morphia mixed with starch, as advised by Mackenzie, may be used twice daily. The dose may be increased to  $\frac{1}{2}$  a grain.

Moure employs 5 grains of hydrochlorate of morphine in  $15\frac{1}{2}$  ounces of water, by spray.

Astier employs the following powder by insufflation: Plumbi acetat., gr. 30; morph. hydrochlor., gr. 3; sacchar. lact., 3  $2\frac{1}{2}$ . To be applied after cleansing the mucous membrane by solutions of potassium chlorate or sodium bicarbonate.

2. The ulcerated surfaces may be cauterized by nitrate of silver, galvanocautery, tincture of iodine, or iodine, gr. 5; potass. iod., gr. 45; glycerin, 3  $2\frac{1}{2}$ .

Iodoform, in suspension in glycerine, or in powder, may be used.

3. If œdema be present, tracheotomy may be necessary.

4. Forced feeding, and preliminary anæsthesia by cocaine, before introducing a stomach tube, may be needed.

The lactic acid treatment (Krause) consists of the use of solutions of from

10 to 80 per cent. of the acid; from which good results have been obtained.—*Journal de Médecine.—Medical News*.

### A Remedy for Hoarseness and Catarrhal Coughs.

SAID to be rapid in its action, is prepared according to the following formula: Ammonium acetate, 3 parts; potassium bromide, 3 parts; tincture of belladonna,  $1\frac{1}{2}$  parts; tincture of aconite, 2 parts; infusion of balsam of tolu, 150 parts; syrup of balsam of tolu, 50 parts. A tablespoonful is to be taken every 3 or 4 hours.—*Med. News*.

### Antipyrin in Hæmoptysis.

IN the *Meditzinskoie Obozrenie*, Dr. M. BYVALKEVITCH, at the Vilna Military Hospital, states that antipyrin is an excellent remedy for pulmonary hemorrhage of every kind. This statement is based on ten cases of hæmoptysis in patients suffering from phthisis, bronchiectasis, cardiac diseases, and traumatic injury of the chest. The following mixture was invariably employed by Dr. Byvalkevitch:  $\mathcal{R}$  Antipyrini, 3 ss; aq. destil, f  $\overline{3}$  iv; essentia menthae pip, gtt. xv. Mix. Dose, one tablespoonful every two or three hours.

In none of these cases were more than two doses of the mixture required to completely arrest hæmoptysis, even when the daily loss of blood amounted to two fluid pounds. In some of the patients, ordinary hæmostatics, such as ergot, ergotin, digitalis, atropine, and Haller's elixir, had been previously tried without effect.—*British Med. Journal*.

### Formula for Creasote in Phthisis.

THE following is Huchard's formula:  $\mathcal{R}$  Creasoti, iodoformi pulv. benzoini, balsam. Peruv  $\text{āā}$  gr.  $\frac{3}{4}$ . M. S.—For one pill. One or two to be taken at each meal.—*Revue de Clin. et de Thérap.*

# CONSTITUTIONAL DISEASES.

## Various Therapeutical uses of Cocaine.

*Cocaine as a local anæsthetic in minor surgical operations.*—DR. E. HOFFMAN, assistant physician of Surg. Clinic, at Greefswald, publishes the following general rules :

The indications for its use are :

1. Cocaine, in the shape of a simple daubing or instillation in solutions of about 20 per cent. or less, is to be recommended in all minor operations and unpleasant or painful manipulations and investigations of the mucous membranes in the oral, nasal and pharyngeal cavities, larynx, ear, urethra, vagina, bladder, rectum.

In many cases, this application may be increased by:

2. Injection into the subcutaneous tissue or into the deeper layers below the mucous membrane, especially in operations of somewhat deeper range.

3. Hypodermic injection with application of pipe (central from the place of injection and a few minutes after injection) is to be used in minor operations on extremities, especially hand and foot. Operations of this kind are: incisions of panaritria, phlegmons and purunoles, operations of nails, resections and abrasions in fingers and toes, extirpations of small tumors, amputation of fingers and toes, etc. In case the pipe could not be applied, as for instance on the trunk, then:

4. Injections are made in distances of 1 to 1½ cm. around the area of operation and a ½ from it. Yet, this method of application is complicated and uncertain on account of the great number of injections.

As counter-indications are to be considered:

1. Great youth of patients, inasmuch as for children the quantity applicable

without danger is hard to be determined, and as the pain caused by the injection itself would, in most cases, frustrate the usefulness of anæsthesia.

2. Great sensitiveness and anxiety of patients.

3. Greater duration and extension of operation. The operation ought not to take more than fifteen minutes of time.

The solutions to be used are 5 to 10 per cent. solutions of muriate or salicylate of the substance, which it will be best always to prepare afresh. Injection is performed by means of a Pravaz syringe, having a very fine canula.

DR. L. G. ORLOW, assistant physician in Professor Monastyrski's surgical division of the "Grand-duchess Helena Clinical Institute," at St. Petersburg, contributes the following observation on local anæsthesia by cocaine muriaticum:

Nineteen major operations were successfully performed under cocaine in subcutaneous injection; *i. e.*: 2 gastro-mies, 2 laparotomies, 1 herniotomy, 2 plastic operations of the face, 1 cleansing of uterus, etc. Even small doses (0.03 to 0.45) will bring about sufficient anæsthesia of a larger area by not injecting the whole quantity in one place, and rather distributing it in 5 to 10 places, the solution to be used being 1.60. Anæsthesia follows after 10 to 15 minutes. Unpleasant secondary effects were not observed.

*Cocaine in labor and gynæcology.*—DR. G. P. ROQUE DABBS publishes a complete tabular statement of his experience, the first series having been published in 1885:

1. Muriate of cocaine in 6 or 12 per cent solutions gave results equally favorable. In short, painful labors, a 4 per cent. solution (in ol. ric.) showed always good effect. The os uteri was lined with cotton tampon, soaked in the

solution, the tampon being renewed every thirty minutes, until complete dilatation was reached.

2. In cases of debility in labor, where ergotine is indicated, the combination for internal use of cocaine with the former will produce an all but absolutely painless dilatation of the os uteri.

3. The most favorable effect in the first stage of parturition will be obtained, in perineal rigidity, by application of a 12 per cent. solution on the vulva and on the inner surface of the vagina.

4. Especially in primiparæ, and in them preferently, when the child is in coccygean position, the application of cocaine is useful, as well as in cases of slow dilatation of the os, and perineal rigidity.

5. Even when it is intended to apply laminaria points to produce dilatation of the mouth of the womb, it is advisable, previously to immerse them in a hot oleaginous solution of cocaine; and similarly, in gynæcological cases with sensitive and irritable vagina, considerable success will be obtained for speculum application, by previously daubing the vaginal coating with a solution of the salt in castor-oil.

*Subcutaneous injections of cocaine against tic douloureux*, according to DR. HILLIER, have given the following results:

An aged colonel was subjected, in the last 8 years, to very violent and irregular accesses of this affection. During the attacks, which would last for a few days or sometimes as long as 3 weeks, the spastic phenomena made their appearance almost every 10 minutes. During the paroxysmic period, touching the beard was sufficient to cause an acute spasm; in this condition, he was frequently unable to take any food. As may well be supposed, he had been submitted, during those eight years, to a

number of treatments, including extraction of all the upper teeth of the right (the diseased) side. Great doses of morphia would never have a more than transient effect, nor was a strong continuous current more successful.

When, in November, 1886, during an attack which had lasted for a fortnight already, Dr. Hillier was called in for the first time with the object of performing the section of the nerve, he first dissuaded him from this purpose, not thinking that this operation would have any satisfactory result, and he decided on trying first the action of subcutaneous injection of 1-6 grain (0.01) cocain. muriat. in the cheek; the result was that the patient passed several hours of that day without pain. On the three days following,  $\frac{1}{3}$  grain (0.02) failed to procure more than one hour of rest, but when, after that  $\frac{1}{2}$  grain (0.03) was injected morning and night, the result was almost complete. After three more days, this dose was gradually reduced, and pain entirely ceased.

From this moment, there were two attacks in the last six months, but they were immediately stopped by injection of 0.03 cocaine. During the intervals, no cocaine had been used.

*Cocaine as a therapeutical agent in cutaneous diseases and syphilis.*—DR. S. LUSTGARTEN has made, in Professor KAPOSI's "Dermatol. Universit. Klinik" the following interesting observations:

In acute and subacute eczema with abundant vesicular after-growth, there was a considerable remission of pruritus after daubing with 2 per cent. solution of cocaine once or twice in 24 hours. In eczema of the sexual organs and of the anus, lanoline ointments of 2 to 3 per cent. cocaine, in combination with tepid half-baths and saponaceous ablutions, have proved exceedingly beneficial. In pruritus ani, suppositories



with 0.05 cocain. oleinic. each, were added. Generally, fatty or anoline ointments with 1 per cent. cocain. oleinic. are to be recommended in all classes of painful losses of substance consequent on cauterization and the like, as for instance in herpes zoster gangrænosus, as well as 2 per cent. aqueous solution for daubing granulations, destined to be touched with lap. inf., and for injections of the urethra in painful erections, chordæ, etc., during gonorrhœa. Finally, a solution of 0.5 cocaine in 10 per cent. of a 2 per cent. carbolic solution (the contents of a syringe to be distributed on several places) was injected with satisfactory result into the reticular cutaneous tissue, to obviate the pain accompanying minor operations, such as extirpation of epitheliomata, atheromata, circumcision, etc. Analgesia was complete, whenever the operation was allowed to take place in healthy tissue; it was not as perfect as could be desired, in certain forms of lupus, and in bubo, as far as cleansing of the deeper parts was concerned. Half a syringe of said solution also suffices to render a subsequent injection of calomel or Hydr. tanicum (for which purpose the canula is left in place) entirely painless. With regard to daily mercurial injections, Dr. Lustgarten does not advise the application of the same method on account of danger from intoxication. In injections of arsenic, 2 lines of the 5 per cent. solution of cocaine were sufficient to produce analgesia. Direct addition of the drug to the above-named fluids is not feasible, on account of decomposition setting in. In a few cases, Dr. L. noticed the appearance, after subcutaneous application of cocaine, of palpitation of the heart, loss of appetite with general indisposition, tremor of extremities, once even a severe epileptic fit.

DR. BARRENECHEA treats in the *Revista Medica de Chile* on cocaine in glaucoma. He feels justified, on the ground of experiences afforded by his own observations, in advancing the following points:

1. Application of cocaine in glaucoma only produces anæsthesia of the conjunctiva.
2. In chronic glaucoma simplex cocaine is without effect.
3. Application of cocaine in chronic glaucoma irritativum is either to be accompanied by pilocarpine or eserine, or it has to precede the latter remedies by several minutes.
4. Used alone in this case, cocaine may bring about an acute attack.
5. After performance of iridectomy in glaucoma, application of cocaine in the above mentioned combination renders good services against ciliar pains, which may develop in consequence of irritation of the nerves.
6. Cocaine acts in glaucoma by favoring circulation and causing a greater and more permanent effect of the anti-glaucomic substances.—*Pacific Record.*

#### A Case of Chronic Diphtheria.

DR. LUIGI CONCETTI, of Rome, Italy, gives the following account of this case: In a Roman family in good circumstances, the ten-year old son, Umberto, was taken sick about the middle of November, 1885, with a serous and occasionally bloody discharge from the nose. This child, like the other children of the family, was of lymphatic temperament, but had enjoyed good health, with the exception of a slight malarial affection in his third year, which quinine cured, and some other slight ailments.

This discharge from the nose was not accompanied with the symptoms of ordinary catarrh, though the parts



adjacent to the nostrils were red, and on the right side of the septum was seen, firmly adherent to the swollen mucous membrane, a grayish-white film. The affection received no further attention until December 13th, when fever of a remitting type, varying from  $99^{\circ}$  to  $104^{\circ}$ , appeared. This attack continued for eight or ten days, was treated as a catarrh of the stomach, and was not thought to be connected with the nasal affection. As the fever lessened the discharge from the nose increased. Ulcerations appeared, which were covered with a grayish-white, firmly adherent film, and with yellow crusts. Washings with a weak solution of salt and water had no effect in changing the condition; the tongue was slightly coated at its base, and the throat was normal. On January 10th, fever reappeared for three days. On January 13th, an older child in the same family was taken sick with a severe attack of the ordinary anginal diphtheria, and recovered after an illness of eight days. On January 15th, a younger brother, fourteen months old, likewise fell ill of diphtheria, and died on the second day; and on the very same day the maid servant had a slight attack. On January 17th, a little sister, three years old, was taken sick and in the same way as her elder brother.

Umberto still continued to have the discharge from his nose, which was now treated with borax and salicylic acid, and, though this did not improve the local disease, the fever subsided and the general condition become considerably better.

No diphtheritic membrane was ever noticed in the throat. About the middle of February the voice became nasal; on the 23d, swallowing became difficult, and fluids that were taken often passed out through the nose; subsequently, these symptoms became still

more decided. After a few days, both the children developed diphtheritic paralysis, the latter lasting in Umberto's case six weeks. As it gradually grew better, the false membrane in the nose and also the discharge, disappeared. The whole duration of the nasal affection was four months.

That it was really diphtheria is proved by the fact that characteristic false membrane persisted for four months; that fever was not present at the beginning of the local affection, and that no other febrile process could have been concerned; that this fever arose from the absorption of products formed in the nose. Besides, there are no other nasal affections which produce the peculiar paralysis observed after diphtheria. The incubation period of diphtheria occupies, as we know, from six to ten days or more; therefore the four other cases of diphtheria in the same family, whose symptoms were classic, must have had a common source of infection, as only three days separated the beginning of the first case from the beginning of the last; and though diphtheria is at times prevalent in Rome, the fact that the others were in intimate contact with Umberto is first to be considered.

The author gives a review of the literature of cases of chronic diphtheria and finds that most of the others began in an ordinary acute attack, whereas this one was chronic from the beginning, and only interrupted by two short febrile periods, which the author attributed to absorption of the decomposed discharge from the nose.—*Deutsche Med. Zeitung*.

#### Sulphur in Diphtheria.

DR. H. VALENTINE KNAGGS, F.R.C.S., L.R.C.P. (*Therapeutic Gazette*):

The forcible blowing of sublimed or precipitated sulphur directly upon the

affected parts has still many votaries, and has probably been more resorted to than any other plan. The sulphur is projected into the throat either by means of an ordinary quill or tube, or by a properly constructed insufflator. Many of the older advocates of this process treated their cases almost exclusively by such means. Dr. Barbosa, of Lisbon, for example, subjected this plan of local medication to a thorough trial. He commenced his observations in 1867. In his memoir of 1874, he states that he has used sulphur successfully in eighteen concurrent cases of laryngeal diphtheria. In his practice he resorted to insufflations every three or four hours, or three times a day, according to the severity of the case. The application was not well borne at first, as it provoked cough and vomiting, but was subsequently renewed when this had subsided. More recently Dr. Schnyder employed insufflations of sublimed sulphur on the plan recommended by Dr. Alb. Lutz, of Wurzburg, in 1870. Dr. Schnyder has employed this treatment without a single failure for seventeen years. He applied the insufflations every two, four, or six hours by means of a tube, blowing the powder freely over the parts. He considered the precipitated sulphur, or milk of sulphur, to be worthless, and thought it absolutely necessary to employ the sublimed form.

It will be readily acknowledged by those who have tried insufflation that it is a very unpleasant and trying process, especially for children and sensitive or nervous adults. There can be no difference of opinion relative to its employment in diphtheria affecting the nasal and upper pharyngeal passages. Its continued use in such cases may be regarded as absolutely necessary to complete a cure. When blown into the throat, however, it provokes cough,

excites nausea, and even vomiting, while it at times greatly distresses the sufferer. Insufflation is a modified form of local application. The powdered drug is applied directly to the seat of the disease. The proportion that finds its way into the stomach is to my mind scarcely sufficient in quantity to effect very rapid improvement of the general febrile symptoms, which originate from the septicæmic condition of the blood. Indirectly by arresting the spread of the local mischief, the sulphur beneficially influences and impedes the further progress of this blood poisoning. At the same time any further extension of the growth is prevented.

It is my firm belief that insufflations are of the greatest service in diphtheria. Previous records alone prove this. I do not myself employ them unless the posterior nares, or the nasal cavities, have become implicated by any extension of the fungoid growth from the throat. I have found the internal use of small doses of sulphur suspended in a viscid mixture to answer every purpose, with the least possible amount of distress to the patient, and with equally uniform certainty. If administered at very frequent intervals, and slowly swallowed or sipped, such a mixture plays the same part as the insufflated powder. It clings to and acts upon the leathery growths in a like manner. The mixture can be taken in any quantity. By its absorption into the system the febrile symptoms are rapidly allayed, and the contagia present in the blood and tissues effectually destroyed.

Local applications containing sulphur suspended in water and various menstrua have been resorted to on various occasions to destroy diphtheritic growths. Remedies of this kind are either applied topically to the affected parts or used as gargles.

The employment of sulphur gargles has been a very favorite form of treatment for many years with the non-medical world in Great Britain. A teaspoonful of the flowers of sulphur is stirred up in a wineglassful of water, and the throat repeatedly gargled with the mixture. With respect to the use of sulphur in this manner the following statement is certainly a remarkable one. It went the round of many of the English weekly periodicals about the year 1878. I extract this from the "Scientific and Useful" column of the *Family Herald*:

The internal administration of sulphur was much resorted to by the pioneers of this treatment. It was often used in conjunction with insufflation. The usual plan adopted consisted in giving one large dose, which was repeated if necessary. Dr. Duché, for instance, employed this medicine internally in this manner in 1858, and advised its use as a preventive among non-infected persons. Dr. Lagauldin, another French observer, several years afterwards gave "a soup-spoonful of sulphur sublimatum mixed with a little water."

Six years ago, in conjunction with my father, I began to use sulphur as a remedy for diphtheria. It was at first given in the various ways that have from one time to another been recommended. During this period of time seventy-five cases have been treated solely by this drug in our practice. In no instance did a fatal termination occur. Complications and sequelæ also were but rarely noticed. An account of these results was published in the *Provincial Medical Journal* in 1885, and I subsequently brought out a small pamphlet on the subject. In this brochure I endeavored to set forth a short account of the prior history of

this method of treatment, and described the particular mode of administration that I hold to be the best suited to this complaint.

It is far from my intention to decry in any way the judicious employment of insufflations, gargles, and maximum doses internally. I have, however, come to the conclusion from practical observations that the most uniform results are to be obtained by the use of small doses given at frequent intervals.

It has been my endeavor to find a suitable vehicle for the exhibition of this remedy. Water can hardly be considered to answer our requirements because of the rapid subsidence of the particles. Mucilage, with or without syrup, appeared to answer well as a menstruum, but the mixture decomposed in the course of a few hours. For preparing the sulphur mixture glycerin will certainly be found the most satisfactory body to use. This fluid is antiseptic. One part to ten of water is stated to preserve animal substances equal to spirit. A mixture made with glycerin keeps well. This addition, according to my belief, greatly enhances the efficacy of the sulphur. The formula that I now use by preference is as follows:

Precipitated sulphur (pure), 3 iss; chocolate powder, 3 i; cinnamon water (concentrated 1 in 40), f 3 i; glycerin to make  $\bar{3}$  iii. Mix the powders together in a mortar, then gradually add the glycerin, with constant trituration, and lastly the cinnamon water. If kept in tightly corked, sealed, or stoppered bottles, this preparation will keep well for a very long time. It of course requires shaking before use. The mixture is remarkably palatable, and is readily taken both by children and adults. Each dram contains about three grains. Sig.— $\frac{1}{2}$  to 1 teaspoonful to be taken every hour or oftener. The

dose should vary according to the age of the patient. The mixture ought to be continued for at least five days, but at less frequent intervals after the severity of the symptoms has abated.

#### **Pye-Smith on Prognosis.**

DR. PYE-SMITH sums up the conclusions arrived at in his paper in the following prognostic aphorisms: Epidemic diseases are not fatal when first introduced. Acute diseases, following upon chronic, are the most dangerous. A degree of pyæmia, which is of slight importance in a child, is grave in an adult, and imminently perilous in an old man.

Typhus fever is most dangerous to persons who have passed their 60th or 50th year; less so to infants and those between 30 and 55; and least dangerous to children about 5 and to young adults.

Small-pox in these particulars closely resembles typhus. Whooping cough is dangerous during infancy, and benign after 5 years of age. Scarlet fever seldom takes on a malignant form when it attacks adults. Acute lobar pneumonia has usually a favorable issue in youth, and is usually fatal in advanced years. In young adults pneumonia is rarely fatal unless the patient has disease of the kidneys or of the heart, or is of intemperate habits. Pneumonia is also a dangerous complication of fevers or acute rheumatism. Acute lobar pneumonia, when not fatal, leaves the lung uninjured after recovery, and the patient in good health. It is seldom or never followed by phthisis, even when it attacks the apex. Primary acute pleurisy is not fatal, unless it is accompanied by pericarditis. Pleurisy, if under treatment it ends in death, is secondary to tubercle or to cancer, or to disease of the kidneys. (Edema of the larynx is

very seldom dangerous; œdema of the lungs is usually so. Acute bronchitis is a frequent cause of death in young children and old people. Fatal bronchitis, in persons between 10 and 60 years of age is either capillary or secondary to tubercle. Phthisis is most pernicious when it is hereditary.—*Medical Progress.*

#### **Physiological Action of Arnica Montanum.**

DR. H. A. HARE, of Philadelphia, says: When a dose of from five to ten drops of the officinal fluid extract of arnica root is injected into the jugular vein of a dog weighing from fifteen to twenty pounds, the pulse rate and arterial pressure are for a moment depressed, but in the course of from thirty seconds to a minute return to their normal position. In about five minutes, however, the pulse beats become one-third slower than they are normally, arterial pressure remains unchanged, save that the pulse waves usually produced by inhibitory stimulation give it a greater range. If under these conditions the pneumogastric nerves be cut, the pulse instantly increases its rate considerably beyond the normal, though not to the point generally produced when the peripheral vagi are in a normal state. This difference was, however, more marked in some cases than in others. We may therefore conclude that the drug stimulates in small ordinary doses the vagal centre in the medulla, thereby producing a slow full pulse, and that it has an effect on the peripheral ends of the vagus, for the reason that when these nerves are cut, the pulse rate only increases somewhat. That this failure of the pulse to become very rapid after vagal section is not due to cardiac depression, is proved by the strong pulse waves, and the increase in arterial pressure, rather than a fall.

When a much larger dose (5 c. c.) is



given to a dog of twenty pounds weight, the primary slowing does not take place, but in its stead the pulse becomes very rapid with a fall of arterial pressure, which, however, soon recovers itself, the pulse still remaining rapid. Under these circumstances it was found that galvanizing the vagus nerves, even for as long as one minute and a half, failed to produce any cardiac slowing, proving palsy of peripheral vagi, and this was also proved by the fact that when the vagi were cut and their peripheral ends stimulated by small doses, large doses immediately produced a rapid rate, but no more than a momentary fall of arterial pressure, lasting, perhaps, twenty seconds and due to the sudden entrance of the drug into the heart *en masse*.

Arnica therefore slows the pulse in ordinary medicinal dose by stimulating the pneumogastrics both peripherally and centrally, increasing the fullness of each pulse wave, and also slightly the arterial pressure. That the increased arterial pressure is chiefly due to increased work done by the heart is strongly indicated by the fact that in none of the experiments was arterial pressure influenced to any extent, by any dose, except when an enormous amount (5 c. c.) was injected rapidly into the jugular vein, when there was for the space of from ten to fifteen seconds a fall in pressure evidently due to momentary heart failure, as the pressure returned at once to normal as soon as the heart freed itself from the volume of the drug. That the fluid extract used was pure, I am confident, since it was prepared by a reliable druggist especially for these experiments.—*Boston Med. and Surg. Journal*.

#### Rheumatism.

*Acute Rheumatism*.—Where the attack is sudden, with considerable pyrexia,

use:  $\mathcal{R}$ . Sodii salicylatis, 3 ij; vin. colch. sem., 3 ij; syr. sacch., q. s. ad  $\mathfrak{z}$  iv. M. Sig.—One teaspoonful every hour.

*Chronic Rheumatism*.— $\mathcal{R}$ . Potassii iodid., 3 iv; tinct. cimicifugæ, 3 iss; vin. colch. sem., 3 ij; aquæ, q. s. ad  $\mathfrak{z}$  iv. M. Sig.—One teaspoonful in water or milk three times a day.

If there is much inflammatory deposit in the tissues about the joints and extremities, I have the parts painted with sol. iodin. comp. If much pain, apply tinct. aconit. rad.—*Med. Register*.

#### Milk and Water.

A NEW and ingenious test for detecting the addition of water to milk is reported, based upon the fact that all well and river water contains nitrates of either calcium, sodium, potassium, or ammonium in varying proportions. The presence of either of these, according to the source of the water, may easily be determined in the residue left upon evaporation of the water. These nitrates, in the proportion present in the drinking water, produce a blue color with diphenylamine sulphate. In testing, twenty drops of the diphenylamine sulphate is placed in a saucer and a little of the suspected milk poured into it. In the presence of only five per cent. of well water of ordinary quality in the milk, it will gradually assume a blue tinge.—*Quarterly Thera. Review*.

#### Oil of Wintergreen.

OIL of wintergreen, says the *Lancet*, is identical with a volatile oil obtained by distilling the bark of *Betula lenta*, the sweet birch or black birch, or cherry birch, or mountain mahogany of the middle and northern United States and Canada, and also with the oil derived by distillation with water from *Spiræa ulmaria*, or meadow-sweet, the principal agent in all being methyl

salicylate. Like other salicylates, these oils possess the property of causing ringing noises in the ears when a sufficient dose is given, which varies for different individuals. Ten minims from three to six times a day is the usual quantity administered, suspended in simple or syrupy water or cod-liver oil. These oils are not so useful in acute rheumatism as in the milder attacks of chronic rheumatism or rheumatic gout. —*New York Medical Journal.*

#### Rectal Injections of the Vapor of Ether in Lead Colic.

RECTAL injections of the vapor of ether in lead colic have proved very satisfactory in the hands of Dr. A. TORRE, of Brest (*Bull. Gén. de Thérap.*), calming the spasmodic state and rendering the action of purgatives less irritating. A case is mentioned in which the vapor of fifteen grains of ether sufficed to produce such results. —*Ibid.*

#### Concentration of the Blood as a Cause of Convulsions.

THE eminent Italian physiologist, IVO NOVI, has made a series of carefully conducted experiments which prove that convulsions are frequently due to an increased specific gravity of the blood. The physiological and therapeutic effects of intravenous injections of chloride of sodium are already well known. Experiments made by earlier investigators have shown :

1. That the blood preserves its normal sp. gr. or amount of chloride of sodium by retarding or increasing excretion by the kidneys.

2. That a saturated solution of chloride of sodium will produce rigidity of muscles placed therein (Schiff).

3. That by increasing the amount of chloride of sodium in the blood by intravenous injection, muscular spasms will

be produced which disappear when the sp. gr. of the blood is again reduced.

NOVI has investigated the mode of production of these muscular contractions, endeavoring to determine whether they were the result of the formation of methæmoglobin, which produces the convulsions seen in asphyxia. He finds that methæmoglobin is not produced, but the concentration of the chlorides acts upon the tissues, purely by abstracting water, that is, by its hygroscopic power. He shows that the substance of the brain, especially the cortex, loses from five to six per cent. of its water.

The following is a summary of his conclusions :

1. The intravenous injection of a ten per cent. solution of chloride of sodium produces in all the higher mammals muscular spasms as soon as the sp. gr. of the blood becomes double the normal.

2. It does not produce this effect by converting the hæmoglobin into methæmoglobin, as in the case with the alkaline chlorates in the experiments of Marchand.

3. The peripheral nerves and muscles are not affected in these conditions. The central nervous system is affected, principally, by the abstraction of water from the brain, especially the gray substance of the cortex.

4. It is highly probable that the convulsions, which accompany analagous concentrations of the blood, as in Asiatic cholera, are due to the same cause. —*Lo Sperimentale.*

#### DISEASES OF THE NERVOUS SYSTEM.

##### Nervous Headache.

IN nervous headache the following will often be found an efficacious and prompt combination : *R.* Acid, hydrobromic, dilut., extract, guaranæ fluid., *āā f ʒ ss.* *M.* Sig —Dose, a teaspoon-

ful in half a tumbler of water, repeated *pro re natâ*.—*Coll. & Clin. Record*.

#### Neuralgia.

For hypodermic use in neuralgia, Dr. EAST, of Mayo (*Phila. Polyclinic*), recommends the following:  $\mathbb{R}$ . Thein., sodii benzoat,  $\mathfrak{aa}$   $\mathfrak{z}$  j; sodii chlorid., gr. viij aquæ destillat.,  $\mathfrak{f}$   $\mathfrak{z}$  j. M. Six minims equal half a grain of theine.

#### Hydrate of Amylene, a New Hypnotic.

DR. J. DE MERING (*Nouveaux Remèdes*), writes of this latest hypnotic that it belongs to the group of tertiary alcohols, and that it is a colorless mobile liquid, soluble in eights parts of water and in alcohol in all proportions. It has an ethereal taste, resembling camphor slightly. In rabbits it is eliminated with the urine as a compound of glycosuric acid, but in man and in dogs it is oxidized in the economy, for the most part, as ordinary alcohol. While experimenting with the drug the author found that rabbits and dogs fell into a profound sleep after its ingestion, and this circumstance led him to make physiological experiments on animals. On injecting a small quantity ( $\frac{1}{8}$  grain) under the skin of a frog, motor paralysis and loss of consciousness soon followed, and then in a short time profound anæsthesia, and finally suppression of the reflexes. After several hours the frog recovered slowly but completely. Rabbits, after having been given from 2 to 3 grammes ( $\mathbb{M}$ xxx to xlv) of the hypnotic, fell into a profound sleep lasting from six to eighteen hours. On awaking, the animals seemed quite well and ate heartily. A dog was given about mid-day, 8 grammes in 300 grammes of water ( $\mathfrak{z}$  ij in aquæ  $\mathfrak{z}$  vjss) by the stomach. Half an hour afterward he fell into a deep sleep, which still continued at 11 P. M. The respi-

rations, which were first 20 in the minute were now 16, but they were deep and regular. The pulse was good. The dog was carried as if dead to his kennel in the laboratory. Next morning he was quite alert and had a good appetite. To compare the action of hydrate of amylene with paraldehyde, the same dog, eight days later, was given the same quantity of the latter drug. Half an hour afterward the dog appeared intoxicated, but sleep did not come on during the whole day. Unlike chloral and other hypnotics, hydrate of amylene has no effect upon the heart and the circulation. It has but a very slight influence upon respiration. In moderate doses it appears to act particularly upon the cerebrum; in very large doses it affects the spinal cord and medulla oblongata, the reflexes disappear, the respirations are arrested, and eventually the heart also is stopped.

During the past two years the author has employed the drug therapeutically in 60 cases, giving in all 350 doses, which varied from 3 to 5 grammes ( $\mathbb{M}$ xlv to xc). Most of the patients suffered with nervous insomnia. It was also given in the insomnia of the aged and of convalescents, in that form associated with anæmia, in phthisical patients, and in febrile conditions, such as typhoid and articular rheumatism. In all these instances a dose varying from 3 to 5 grammes ( $\mathbb{M}$ xlv to  $\mathbb{M}$ lxxv) was followed by a quiet sleep of six to twelve hours without any preliminary excitement. In the insomnia resulting from painful conditions it is not so useful as hydrate of chloral. Combined however, with morphine, it is of value. As a narcotic it stands midway between chloral and paraldehyde. One gramme of chloral is equal to two of hydrate of amylene, and the latter is equal to three of paraldehyde. It is preferable to

chloral because even in the largest doses it has no injurious effect upon the heart and upon respiration. It may be administered with gum arabic in water.—*N. Y. Medical Journal.*

#### **Somnambulism Caused by Atropine.**

IN the *St. Louis Med. and Surg. Journal*, A. D. WILLIAMS tells the story of a man for whom he prescribed an atropine solution to be dropped in the eye for contusion of the cornea. The solution was of the usual strength (one grain to two fluid drams?) and was ordered to be dropped in the eye five times a day. After two or three days of this treatment the patient arose one night towards morning, and in a somnambulistic condition, and clad only in his night shirt, left the house and walked eight or ten blocks away. It was during warm weather and most of the houses had their windows open. Entering one of these he wandered about the house until awakened by the vigorous snoring of one of the sleepers. Making his way out of the house he found himself in a strange neighborhood, and had some difficulty in finding his way home, being mistaken once for a ghost. Dr. Williams expresses the opinion that the atropine was the direct cause of the somnambulism, as the man had never before shown the slightest tendency to wander in his sleep. The frequency of application of the drops was diminished and no further ill effects were noticed. Two other instances in which the drug produced temporary dementia in boys are also mentioned.

#### **DISEASES OF RESPIRATORY ORGANS.**

##### **The Use of Pilocarpine in Lung Diseases.**

DURING the past year the author has made careful investigations with pilocarpine with reference to its utility as a

diuretic and sialagogue. Investigations upon animals had already shown that its use excited an abundant secretion of thin and watery mucus from the glands of the trachea and bronchi, which, if allowed to accumulate in the air passages, would readily induce œdema of the lungs. The drug has therefore been frequently condemned as a medicament in lung diseases, although it has also been shown that with suitable care serious results need not be anticipated. The author has used it satisfactorily in chronic bronchial catarrh, pneumonia, whooping-cough, laryngeal diphtheria, and laryngeal croup, constantly obtaining by its use an increase in the bronchial secretion, this result being usually obtained quickly, and never with the manifestation of dangerous symptoms. In eight cases of pneumonia in adults it was given hypodermically to hasten the resorption of the exudate, and with good results. In whooping-cough it was used for children from eight to twelve years of age, with a view of relieving them of the accumulations in the larynx, trachea, and bronchi. One centigramme of the hydro-chlorate was used subcutaneously every day or every second day from eight to fourteen days, with the result of diminishing the number and duration of the paroxysms. The discharges became more fluid and were expelled more readily, and after discontinuing the pilocarpine, the disease disappeared in most cases after an additional week or two of simple treatment. The pilocarpine was also used in treating diphtheritic angina in children eight years of age, an injection of one centigramme of the muriate being used daily for three to five days. The result was an increase of the secretions and a shedding of the diphtheritic membrane, but the latter was accomplished somewhat more



quickly by local applications of papayotin. Occasionally the effect of the pilocarpine was to excite vomiting, which was not distressing, and in some cases effected the discharge of the accumulations in the air passages. The only effect upon the heart, even in the most feeble children, was a slight increase in the frequency of the pulse. The author made it a point to watch carefully the effect of each dose, either remaining with the child until the effect was produced or within easy hailing distance.—*Centralb. f. Kinderh.*

#### Potentilla in Night-Sweats.

I DESIRE to call the attention of the profession to a vegetable remedy, native to our soil, for that troublesome accompaniment of wasting diseases, night-sweats. Atropine is a good remedy, and in the majority of cases answers the purpose; but atropine is a very strong medicine, and must be used with great care. A simpler medicine, answering the same purpose, would certainly be better. King recommends it, but I did not get it from him; I got it from an old negro,—from the same source that the profession got gossypium. The remedy is one indigenous to the whole country; it is therefore within the reach of us all, it is the cinque-foil, *potentilla canadensis*, called by some botanists *potentilla sarmentosa*. I have stopped night-sweats with it when atropine failed to relieve. It is pleasant to take; when drawn it has an agreeable odor, much like table-tea. The manner of preparation is to pour boiling water on a handful of the vine, leaves and root. Let the patient drink *ad libitum*.—*Therapeutic Gazette.*

#### Nasal Intubation.

DR. D. H. GOODWILLIE (*New York Medical Journal*): On this occasion it

is only my purpose to introduce to you a method of nasal intubation as a valuable aid in the treatment of intranasal disease, and at some future time to give more in detail the result of an experience of some years of its use.

My first efforts began by the use of pure rubber-gum tubing of different sizes and strength, and made applicable to each case by such impromptu means as I had at command. These experiments, after being carried on for some time, were so encouraging that I had the tubes made in soft rubber and platinum or aluminium from models that have proved by experience to be of practical application. These improved tubes properly made have given me such good results that I merely call your attention to them for your consideration.



These tubes are oval (a) in shape and of the same size, with the exception of the anterior end (b), that is shaped so as to fit the vestibule of the nostril, and by that they are retained in place.

They are made of different sizes,  $\frac{1}{4}$  to  $\frac{1}{2}$  inch in diameter, and in length from  $2\frac{1}{2}$  to  $3\frac{1}{2}$  inches, but may readily be cut to any desired length.

The metal tubes can be changed in their caliber by passing through them a core of the desired shape. The anterior end may be soft rubber, as it is more comfortable by its flexibility in the vestibule of the nose.

The small rubber tubes are made use of at the beginning of the treatment and changed to larger ones until there is normal space or the deformity has been corrected. Then the metal tubes may be used if so desired, as they allow

freer respiration through them. The tube is put into the nostril by raising the end of the nose and gently passing it into the inferior meatus, then releasing the end of the nose and passing the anterior end into the vestibule. They can not be seen externally, and so can be worn and treatment carried on without any unsightly appearance, or even knowledge of their presence.

They can be readily removed by the patient for cleansing and returned to the nostril. Some of my patients have worn them constantly for months without discomfort and always with benefit.

I will simply refer to some of the nasal diseases in which they have been made use of—viz :

1. Intranasal hemorrhage.
2. Fractures of the nose, internal and external.
3. Deviations of the cartilaginous and bony septum after the necessary surgical operation of section or removal of exostosis.
4. After the removal of hypertrophic turbinated tissues or polypi, whether by the cautery or snare.
5. Hypertrophies of the soft tissues without an operation, when worn for a sufficient time to produce absorption.

#### Syrup of Tar in Winter Cough.

IN the *British Medical Journal*, March 3, 1888, Dr. WILLIAM MURRELL says that tar is undoubtedly one of the best remedies for chronic bronchitis and winter cough. He uses the *syrupus picis liquidæ* of the U. S. Pharmacopœia. With the addition of a few drops of ammonia or other alkali the syrup can be prepared of almost any desired strength of tar. He usually gives it in doses of from two to four drams every three hours, or even oftener. If disagreeable to take, it may be flavored with syrup of wild cherry. The efficacy

of the combination may be greatly increased by the addition of a little apomorphine. Six minims of a two per cent. solution may, he says, be given frequently without exciting nausea. During the past two years he has used this method of treatment in nearly a hundred cases of chronic bronchitis and winter cough, and has every reason to be satisfied with the result. The cough is relieved, expectoration is rendered easier, and the patient usually sleeps well at night. The syrup of tar alone without the apomorphine is admirably adapted to the treatment of the coughs and colds of children, and has none of the disadvantages of preparations containing opiates:

#### Inflammations of the Throat.

The following prescription is in use in the throat department of Jefferson Hospital for general inflammations of the throat: *R.* Potas. chlorat., ʒ ij; tinct. guaiac. ammon., f ʒ iiij; mel. despumat., ʒ j; tinct. cinchonæ comp., f ʒ ij; aquæ, q. s. ad f ʒ iiij. *M.* Add two teaspoonfuls to half-glass of milk, gargle, and take one swallow.—*Coll. & Clin. Record.*

#### DISEASES OF THE URINARY ORGANS.

##### Lithæmia and Allied Disorders.

DR. THOMAS E. SATTERTHWAITE (*Medical Record*) :

Let us note with more detail the symptoms of those three varieties of lithæmia.

1. The hepatic form (hepatic dyspepsia) : Prominent among the symptoms are those of gastric catarrh, distress in the epigastric region, especially after eating, with drowsiness; acid eructations, a furred tongue, and sluggish bowels. Palpitation will occur if the stomach be at any time dilated.

2. In the neurotic form the patient is

apt to suffer from neuralgia, frontal headache, tinnitus aurium, a sense of weariness in the limbs, some form of mental aberration, perhaps, such as melancholy or hypochondriasis. Sometimes there are vertigo, muscular cramps, spinal irritations, vaso-motor disturbances, delusions, and, perhaps, epileptiform symptoms.

3. In gout we have as a substratum either of the above forms, while there is in the individual a tendency, that is usually, if not always, inherited, to deposit in joints.

*Diagnosis.*—1. In the hepatic form a diagnosis rests upon the regular occurrence of uric acid in the urine, and especially, before the usual acid fermentation takes place, upon the deep color of the urine, and its high specific gravity when unaffected by remedies; and by the regular symptoms of hepatic congestion, with its concurrent phenomena as already described.

2. In the neurotic form we are only called upon to differentiate from other organic or functional nervous diseases when the regular occurrence of uric acid in a urine, before the period already mentioned, will indicate the source of the disturbance.

3. In gout, the peculiar attacks, affecting as they do, usually the larger joints of the toes, preceded by irregular cramps and spasms, having a short but violent exacerbation, in which the urine is notably free from uric acid, and followed by sudden and entire relief, while the urine is quickly loaded with uric acid, indicate with sufficient clearness that the affection is gout and nothing else.

*Treatment.*—Though in many cases it will be found all-sufficient to diminish the amount of nitrogenous food, this is not always the case; for if too much dependence be placed upon the carbo-

hydrates, the mucus of the gastro-intestinal tract may set up acetic fermentation and carbonic acid will be produced, and there will be that undue pressure, as the result of gaseous accumulation, which leads to neurotic disturbances, and so, indirectly, to faulty conversion of the proteid substances of the intestinal digestion. A mixed diet is therefore to be given, and care is to be taken that such substances only be ingested as are thoroughly digestible. For this reason individual idiosyncrasies must be duly considered.

In lithæmia it is most essential that the bowels be freely moved, and laxative waters are most desirable for several reasons: 1, They promote the oxidation of proteid substances; 2, they cause the kidneys to do their part in elimination; and 3, they promote intestinal action. To be recommended are our own Congress waters, the Hathorn, and the foreign Pullna and Friedrichshall or Carlsbad, which owe their virtues mainly to the sulphate of soda or to the sulphate of magnesia, or to both in combination. If, in addition to this line of treatment, the patient be compelled to take active out-of-door life, and be restricted entirely in the use of alcoholic stimulants, a favorable prognosis may be entertained. But while such a course of treatment is adapted for a certain class of individuals notably those of full habit, we meet in this country with another which exhibits plain indications of neurasthenia. In this neurotic class, and they are the most common by far, the principles of treatment are those that apply to neurotic persons generally. Rest of mind and body should be enforced, and their dyspepsias should be treated, not only by a careful avoidance of substances that cause gastric irritation, but flagging appetite should be sustained

by suitable digestive ferments, such as pepsine or pancreatine, with an aromatic. And, in addition, women may take with advantage some form of tonic, and have quinine in small doses combined with a little strychnia. If stimulants be used, a little brandy or whiskey, well diluted, or a glass or two of good Hungarian red wine at meal-time. It is always well in such cases also to drink freely of carbonated waters, such as are now common all over the country. They not only produce increased oxidation, but, passing freely through the kidneys, wash or "flush" them out.

### DIGESTIVE TRACT.

#### Hydro-Peritoneum and the Use of Diuretics.

DR. W. P. KISTLER, of Allentown, Pa., kindly contributes the following: I embrace this opportunity to report the following case of ascites, simply to show the value or utility of certain diuretics, being well aware that not every case of peritoneal dropsy can be expected to terminate so favorably, even under the most favorable circumstances, for when tubercles and cancer of the peritoneum, cirrhosis and other serious organic lesions of the liver are causes of such effusions, we can at best hope to palliate the sufferings of our patient but temporarily.

Anthony R., æt. 60 years, a mason (German), came to America thirty-five years ago, and was always a well man up to February, 1886, when he was suddenly siezed in the middle of the night with a severe dyspnœa, which continued more or less for a few days, when he resumed his work, continuing to do so up to the 18th day of May in the same year, when much œdema of the legs, with palpitation of the heart, compelled

the man to relinquish his work, general dropsy supervened, which was soon followed by an effusion of serum into the peritoneal sac. Hydrogogue cathartics and diuretics failing to produce satisfactory results, Dr. Wilson, his attending physician, on November 27, 1886, performed tapping and removed twelve quarts of liquid from the abdominal cavity, which, as usual, gave prompt relief. The effusion accumulated rather slowly at first, but on February 15, 1887, I was called in, when the poor man was in very great distress indeed, and I concluded that the surgical method of treatment, namely tapping, should not be further delayed, whereupon I operated and removed 15 qts of serum. There being a bad hydrœmic state of the blood, with poor appetite, &c., I prescribed 2 gr. pills of quiniæ sulph., three times a day before meals, and chalybeates after meals. The dropsy not yielding and the peritoneal effusion increasing rapidly, I continued the tonics and placed him under the following diuretic mixture, viz.: *R. Potassæ acetat.*,  $\bar{3}$  iv; *scillæ acetum*,  $\bar{3}$  ij; *tinct. digitalis*, *F. E. Scoparii*, spts. ether. nitrosi,  $\bar{a}\bar{a}$   $\bar{3}$  i; *aq. q. s.* *Ft. mixt.*  $\bar{3}$  viii (8). Dose, two teaspoonfuls every three hours. Diuretics produce an increased secretion of urine by their stimulating effect upon the kidneys, but more I believe through their influence on the blood pressure which some produce, like the digitalis and scill., than by their peculiar diuretic properties otherwise, and it is perhaps owing to this that they work best when a number are combined.

I have employed the foregoing formula frequently, where this class of medicines were indicated, and generally with the happiest results, especially in cardiac dropsies, where I of late add the fluid extract of convalaria sometimes, and find that its diuretic proper-



ties exceed those of digitalis greatly. In this case the effusion in the peritoneum as well as the anasarca disappeared rapidly under the above treatment, the patient soon resumed his work and continued to do so up to a short time ago, when he felt oppressed at the heart, and came to this city to consult me, but no ascites had occurred, yet I placed him upon tonics and the F. E. convalaria as a cardiac remedy.

#### Rectal Feeding.

From a study on the subject of rectal alimentation, Dr. WEAVER (*Transactions of the Luzerne County Medical Society*) has formulated the following conclusions :

1. By the use of enemata life can be sustained indefinitely with little, if any, loss of weight to the body.

2. In a large proportion of cases in which rectal aliment is used, true digestion of albuminous, saccharine, and fatty food takes place, by virtue of in-haustion, or a reversal of the normal peristalsis of the alimentary tract.

3. While this is the case, there are doubtless instances in which retrostalsis does not occur, and for that reason the food used should first be artificially digested before being injected into the rectum.

4. While milk, eggs, and brandy are the best aliment for rectal nutrition, no one article should be used for too long a time, but frequent changes should be made, observing the greatest care to prevent irritation of the rectum, or intolerance of that organ for the nutriment required.

5. The enemata should, if possible, be administered by the physician himself. Where difficulty in retaining the aliment is encountered, the colonic method is preferable, the food being

propelled through a rectal bougie. The food should be of the temperature of the body.

6. The rectum having once become intolerant of enemata, absolute rest must be given to that viscus for a few days, and reliance be placed on nutritious inunctions of the surface of the body.

7. For rectal alimentation there exists a wider range of usefulness than has heretofore been assigned so it. It is not only appropriate in the severer forms of chronic diseases of the stomach and œsophagus, but is indicated and should be utilized in the management of all acute diseases when, from any cause, the stomach becomes intractable and rebellious.

8. In diseases of the stomach, even where a portion of the food ingested is retained by that organ, only to undergo fermentation, inducing thereby pain and distress, it is more logical to resort to rectal alimentation, not as an adjunct to, but a substitute for stomachal ingestion.

9. Certain organic lesions as well as functional disturbances of the stomach are curable by means of rest to that organ, and by no other means. In rectal alimentation we have a safe and sure means of nutrition, pending the necessary period of rest.—*Dietetic Gaz.*

#### Chronic Constipation.

A GERMAN writer recommends for habitual constipation, that a cannon ball, weighing three to five pounds, should be rolled about upon the abdomen for five or ten minutes daily. It may be covered with chamois or kept warm in winter by the stove. Early in the morning is stated to be the best time for such a gymnastic performance. This is a novel method of abdominal massage.

**CONSTITUTIONAL DISEASES.**

**Malarial Congestion.**

DR. J. A. LIPSCOMB believes that the difference between the ordinary and the congestive, or pernicious paroxysm, is only one of degree. Cases classed as congestive may be arranged, for practical purposes, under one of the five following groups: the comatose, the spasmodic, the pulmonary, the choleraic and the algid. In the first group the poison seizes upon the brain; in the second upon the cord and medulla; in the third upon the respiratory organs; in the fourth upon the digestive organs, and in the fifth upon no special more than another, unless it be the skin. The leading indications are to bring about reaction, and then to bring the system as speedily as possible under the influence of an antiperiodic. He freely concurs in the following opinion expressed by Dr. Davidson:

No time is to be lost in relieving the patient from the lesion of innervation and bringing about reaction. Delay in experimenting with sinapisms, plasters and stimulants is time thrown away, and will disappoint the expectations of the physician.

Dr. Lipscomb then declares: While the depressed condition of the heart's action continues, with the serum of the blood exuding through the paralyzed capillaries of the whole mucous surface of the bowels, and the copious transudation through the skin exhausting the patient and deepening the collapse, calorification is difficult to restore. All means therefore for arousing the energy of the nervous system, and thus restoring the lost tone to the tissues, must be resorted to. What then are the means best adapted to these ends? In my humble opinion, the shock produced by the cold douche, conjoined with the

hypodermic injection of morphia and atropia, or of strychnia, or of atropia and digitaline, as the indications may require.

As to the best way of applying the cold water, he has adopted the plan of pouring it from the pitcher, held as high above the patient as is convenient and allowing it to fall directly upon the back of the head and neck and down the spine. After having used several gallons of water in this way, he has the patient wiped dry with towels and wrapped in dry blankets, and given a hypodermic injection of atropia, or of atropia and morphia, or of strychnia, as may seem to be indicated. If reaction does not take place in half an hour, he repeats the douche, and wraps the patient in the blankets as before. If there is great restlessness with vomiting, morphia and atropia subserve the best purpose; if great nervous depression, with sighing respiration, strychnia increases the muscular tonicity and strengthens the action of the heart, as does also digitaline.

If by these means, he says, you have succeeded in establishing reaction, lose no time in meeting the second indication, namely, that of bringing the system under the influence of quinine. He cautions the physician, however, against letting anxiety to meet the second indication get the better of his judgment, and so commence the quinine too soon. Before reaction is established and the nervous centres liberated from the depressing effect of the poison, quinine will add to the depression and sink the patient into a condition of collapse from which it will be difficult to relieve him, even if it can be done at all. He is satisfied that he has seen this happen more than once in his own practice, as well as in that of others. Having thus succeeded in establishing

reaction, he advises to proceed at once to meet the second indication by the administration of quinine. The preparation of the remedy and the avenue by which it is to be administered, so as to most speedily bring the system under its antiperiodic effect, he regards as matters of grave importance. It does no good to give it by the mouth—for if it is not rejected it will not be absorbed; and the same objection may be urged to giving it by the rectum. The hypodermic method he regards as the only one to be thought of, and the bisulphate, being the most soluble, as the best preparation. One dram of this salt dissolved in an ounce of hot water and filtered, makes a very nice solution and is less often followed by abscesses than a solution of the sulphate. One dram of this solution representing seven and one-half grains may be injected under the skin every hour or two as the exigencies of the case may require. Since adopting this plan of treatment he has had better success than with the old one, and thinks he has saved some valuable lives.—*Memphis Med. Monthly.*

#### Treatment of the Ear in Diphtheria.

It is a well known fact that diphtheria of the air passages, and especially of the nose and throat, often extends as such into the drum, or in some way excites a suppurative inflammation in that cavity, causing abscesses and profuse otorrhœa lasting an indefinite time after the patient gets well otherwise. Diphtheria therefore is one of the common causes of suppurating or "running" ears. How should the ear be treated when it becomes thus involved? My views on this subject are somewhat peculiar, and I propose merely to state them here. It is an admitted fact that nearly every child afflicted with diphtheria is in a serious condition

and too often fatally ill. In a large proportion of the cases (I might say in nearly all of them) in which the drum is involved, the little patients are too ill to know exactly when the involvement first begins in the ear. As a rule the first evidence of the fact that the physician or attendant has, is the appearance of pus in the external meatus. In such cases, where the child is, as before remarked, nearly always ill nigh unto death, I do not think that it is advisable to annoy them by attempting to treat the ear, deferring all interference until the dangerous period has passed and convalescence has progressed sufficiently for them to sit up in bed. But when this period arrives, if ever, treatment should begin promptly and be followed carefully and regularly. In addition to the reason already suggested, I am opposed to earlier interference, because diphtheria of the drum, like that of the air passages or other portions of the body, must run a certain course, and it is a very doubtful question in my mind whether any treatment can abridge or even modify the process in the drum, which is practically a closed cavity. It is certain, at any rate, that a diphtheritic membrane formed in this cavity cannot possibly be removed until the process has advanced sufficiently to loosen it. In the meantime suppuration has taken place and an abscess is inevitable. In diphtheria of the conjunctiva, where the diseased part is easily accessible, we find it impossible to remove the false membrane, either by medicines, or by instruments, without cutting or tearing, until it spontaneously starts to separate from the mucous membrane. How much more difficult would it be to endeavor to remove it from an inaccessible cavity under the same conditions or with the same agents? These in brief are my reasons for advising non-inter-

ference in the acute stage of the disease. I insist however upon treatment as soon as convalescence sets in, and that it should be faithfully followed. The treatment is the usual one for otorrhœa, which I need not repeat here.—*St. Louis Medical and Surgical Journal.*

#### Cyanide of Mercury in Diphtheria in Sweden.

DR. H SELLDÉN (*Lancet*), a Swedish provincial medical officer, considers that he is warranted by the results obtained both by himself and numerous colleagues in the treatment of diphtheria by cyanide of mercury in looking upon this drug almost as a specific. During the four years 1879-1882, the official returns of the sickness in the district of Norberg show that 564 persons were attacked by diphtheria, of whom 523 died, a mortality of 92.7 per cent., none of these being treated by cyanide of mercury. During the years 1883-1886, 160 persons suffered from the disease, and of this number 29 died; 132 of these 160 cases had been treated by cyanide of mercury, and of these 132 only one died. Is it possible, asks Dr. Selldén, that this startling difference in the mortality can have been due either to accident or to mistaken diagnosis? On the latter point he assures us that all the 132 cases were well marked with distinct pseudo-membrane, swelling of the glands, extremely foul breath, and all the signs of diphtheria which were present in the other and more fatal group of cases. Up to the commencement of the present year Dr. Selldén has treated more than 200 cases of diphtheria with cyanide of mercury, and of these only four have died, three of whom were seen by him too late for much good to be expected from any treatment. He and his colleagues have altogether treated more than 1,400 cases

in this way, with a total mortality of 69, or about 4.9 per cent. As to the mode in which the cyanide acts, he suggests that by giving oft-repeated small doses the body becomes rapidly so impregnated with mercury that the diphtheria bacilli are unable to move upon it; indeed, he believes that by means of such doses one might allow one's self to be inoculated with diphtheria bacilli with impunity. The formula he recommends is as follows: Cyanide of mercury, gr.  $\frac{1}{3}$ ; tincture of aconite 15 minims; honey, 3 xiii; mix and give a teaspoonful every fifteen, thirty, or sixty minutes, according to the patient's age. No brushing of the throat is practised. A gargle is prescribed to be used every fifteen minutes, composed of cyanide of mercury in peppermint water, in the proportion of 1 to 10,000. Occasionally, where the cyanide of mercury has not appeared to act as quickly as usual, recourse has been had to the biniodide, with satisfactory results. Dr. Selldén thinks it probable that the subchloride and perchloride may also act in some cases better than the cyanide.

#### New Blistering Liquid.

D. BONI (*Giorn farm. trent.*) recommends chloral camphor as superior to any of the ordinary vehicles for the active principle of cantharides. His preparation consists of: Camphor, 20 parts; chloral hydrate, 30 parts; cantharides, 10 parts.

The pulverized camphor is mixed with the chloral hydrate and heated to 140° F until fused, the bruised cantharides is then added, and the mixture digested at 140° to 158° F. one hour, with occasional stirring, then strained and preserved in a glass stoppered bottle. It is to be applied by a compress, or in the case of children or delicate women, simply pencilled over



the surface. The circumstance that it is non-volatile gives it a great advantage over cantharidal collodion.—*Quarterly Therap. Review.*

#### Application for Gout and Rheumatism.

A MIXTURE made up of ether, 15 parts; flexible collodion, 15 parts; salicylic acid, 4 parts; morphine, 1 part; painted every hour on joints affected with gout or chronic rheumatism, is said to afford great relief from pain.—*Med. and Surg. Reporter.*

#### Ointment in Small-pox.

THE following ointment is said to act as an anæsthetic and antiseptic, and to prevent pitting: *R.* Pulv. iodoformi, 3 ss; pulv. camphoræ, 3 i; vaselini puri, 5 j. *Misce. Ft. ung. Sig.*—Apply by gentle inunction to the affected parts of the skin.—*Med. and Surg. Reporter.*

#### Antipyrin and Carbolic Acid.

SOLUTIONS of antipyrin being now not unfrequently required for subcutaneous injection, the addition of carbolic acid has been suggested as a means of preventing in them fungoid growths. The observation that a turbidity in the solution was caused sometimes upon making such an addition, led Dr. VULPIUS to investigate the conditions of the relative solubility of these two compounds. (*Apot. Zeit.*) At first the turbidity was looked upon as an instance of the smaller solubility of one of two substances in a solution of the other as compared with its solubility in pure water, but eventually it appeared to be due to the formation of a relatively insoluble compound of carbolic acid and antipyrin. As the result of a number of experiments made to ascertain the proportions in which the two compounds could be mixed together in water without turbidity occurring, it

was found that if a solution contained much less than one per cent. of carbolic acid or 0.5 per cent. of antipyrin no separation took place upon the addition of a concentrated solution of the other body. As the molecular weight of antipyrin (188) is exactly double that of carbolic acid (94), this would seem to indicate the formation of a compound containing one equivalent of antipyrin and two equivalents of carbolic acid, soluble in water to the extent of one to two per cent. The solubility, however, greatly increases with the temperature, and a solution saturated and clear at 100° C. becomes turbid at 90° C. The combination would appear to be a very loose one, since if the only deposit that collects at the bottom of a supersaturated solution be exposed to a temperature of 100° C. it loses weight and eventually crystallizes, presenting then the characters of antipyrin. It follows from the foregoing that carbolic acid cannot be added to hypodermic solutions of antipyrin in the quantity required to effect sterilization. Nevertheless, antipyrin is freely soluble in melted absolute carbolic acid, and a mixture of two parts by weight of antipyrin with one part by weight of carbolic acid forms a syrupy liquid that behaves similarly to that which separates from supersaturated aqueous solutions of mixtures of the two compounds.—*Phar. Journ. and Trans.*

#### Hypodermic Use of Salt and Water.

AN interesting article appeared only lately in the *Przegląd Lekarski*, by Dr. ROSENBUCH, relating to the value of hypodermic injections of salt and water. Cantani's work concerning its value in cases of cholera suggested its use to the author, who tried it in cases of long diarrhea, vomiting, and hemorrhages, and observed both a nutritive and a stimulative action upon the cardiac

muscles. He used a six per cent. solution, of which he injected from 5 to 20 grammes at one place. Dr. Rosenbuch never observed any inflammation or the formation of an abscess to follow its use. After twenty or thirty grammes had been injected, the pulse would become slower and fuller in three to five minutes. This improvement would last for several hours.

The following symptoms the author considers to indicate the above treatment :

1. Sudden collapse.
2. Heart failure in acute diseases.
3. Gastro-enteritis acutissima.
4. Hemorrhages of the lungs, stomach or bowels.
5. Cachexia during chronic ailments, 5 grammes (1 gramme=16 minims) of the solution may be injected daily in the latter.—*Schmidt's Jahrbücher der Gesamten Medicin.*—*Therapeutic Gaz.*

#### Teaching of Anatomy—Its Proper Methods.

DR. A. H. P. LEUF (*Gaillard's Medical Journal*) summarizes his views thus :

1. The instruction is special, though complete only as regards certain organs or parts of the body.
2. It is too general as regards other organs or parts of the body.
3. It is neither the one nor the other, as regards still other organs or parts of the body.
4. It is the custom to generally overlook these relations of organs to one another which, if properly taught, would be very useful to remember.
5. There is a general failure to prepare the student's mind with a proper incentive to acquire anatomical knowledge before it is imparted.
6. Too little is said of the philosophy or principles of anatomy which, if properly taught, would make remembrance easier.

7. The failure to always clearly show the relations of anatomy to the other branches of medicine.

8. Incompetent teachers, or such who, though competent, are indifferent, or have not sufficient time to do their duty.

The remedy for this state of affairs may be tersely summarized as follows :

1. Teach the special anatomy of every organ or part of the body distinct from all other, and do it thoroughly and completely.
2. Give also a general idea or outline of each organ or part of the body.
3. Never fail in any instance to do this in the case of every organ or part of the body, as far as our knowledge will admit.
4. Invariably show the true and exact relations of the parts to each other.
5. Always try to create in the student's mind a desire for the knowledge to be acquired by showing its necessity.
6. Show in a natural way, without too much mnemonics, how many anatomical principles and associations there are which, if remembered, will do alike for many or all parts of the body.

#### A New Deodorizer for Iodoform.

LOUIS GENOIS writes to the *Medical News*, advocating the use of purified naphthaline as a deodorant for iodoform. He declares that it will mask the characteristic odor of iodoform so effectually as to challenge detection by the sense of smell alone. He suggests the following formulæ:  $\mathcal{R}$ . Naphthalini purificat, gr. viiiss; turmeric, gr. iss; iodoform, gr. xci. Rub together until thoroughly mixed.

$\mathcal{R}$ . Iodoformi deodorat (as above),  $\mathfrak{z}$  ii; olei amygdalæ, f  $\mathfrak{z}$  ii; lanolini,  $\mathfrak{z}$  vss. M.

For ordinary pharmaceutical purposes the deodorized iodoform can be

used instead of the simple drug, but in making an ethereal solution the turmeric should be left out, as it is not soluble in ether—*Med. and Surg. Reporter*.

#### Bromidia.

THE *Alienist and Neurologist* says of BATTLE & Co.'s bromidia, that there is no better mixture for use under the circumstances in which its ingredients are indicated, but that the directions accompanying it (not to exceed three or four doses in the course of twenty-four hours, and to give it by preference during the evening or night) ought to be strictly followed. In many cases in which bromidia is used, our esteemed contemporary thinks that the amount of bromide of potassium contained in it might well be doubled, according to the following formula: Bromidia, 2 drams; bromide of potassium, 30 grains; syrup of balsam of tolu, 3 drams; peppermint-water to 1 ounce. To be given at 8 or 9 P. M., well diluted with water, and repeated once during the night, if necessary.

#### The Preparation of Food for the Sick.

In making a beef tea the round of a good piece of beef should always be selected, and cut into small cubes not larger than half an inch in diameter. It should then be put to soak for two hours on the back of the range, in an earthen-ware pipkin, with one pint of cold water, and allowed to simmer for about fifteen minutes and boil for three minutes. After adding half a teaspoonful of salt and a little pepper, the tea is ready for use.

In the preparation of soups the first thing is the making of the so called stock or basis for the soup. There are two distinct stocks: one, which may be known as the brown stock, the other as clear, or *consommé*, stock. For the preparation of brown stock take four

pounds of shin of beef, four quarts of cold water, ten whole cloves, four pepper-corns, a bouquet of herbs (sweet marjoram, summer savory, thyme, and sage), one tablespoonful of salt, three small onions, one turnip, one carrot, two stalks of celery, two sprigs of parsley. Cut the meat from the bones, after which place the bones and half of the meat in a soup kettle and allow to stand for half an hour in cold water. Heat gradually and allow to simmer for six or seven hours. Brown the remainder of the meat in two tablespoonfuls of beef drippings and add with the other meat and with the vegetables chopped fine, when the kettle is put on the fire to simmer. After it has simmered the required time the stock is strained and set aside to cool, the fat being removed from the top. The stock is then ready for use.

Out of the brown stock may be made St. Julienne soup by the following process. In making these soups the stocks must never be allowed to boil, or at most must be brought only for a moment to the boiling point. For St. Julienne put one pint of the brown stock on the fire to heat, after which a pint of finely chopped vegetables (turnip, carrot, etc.), with half a teaspoonful of salt, should be put on with a little water to parboil. This being done, add the vegetables to the stock, season with half a saltspoon of pepper. Vermicelli soup is made by adding half a cup of vermicelli to a pint of the brown stock. Cook the vermicelli for ten minutes in salted boiling water, season with a half-teaspoonful of salt and a half-saltspoonful of pepper, and add to the warm stock.

Consommé stock is to be made in exactly the same way as the brown stock, except that three pounds of the knuckle of veal are to be added to the meat and all the meat is to be put in at once

without browning. After the stock has been formed, in order to clear it add the white and shell of one egg, the juice and rind of one lemon, beating them all up together; then put on the fire, bring to the boiling-point, strain through a sieve and again through a napkin, without pressure or squeezing, and serve.

For making chicken broth, take three pounds of chicken well cleaned, cover with cold water, boil from three to five hours (until the meat falls to pieces), strain, cool, and skim off the fat. To a pint of this add salt and pepper and two tablespoonfuls of soft rice, which has been previously thoroughly boiled in salt water; bring the broth to a boil. In preparing the rice half a cupful should be boiled for thirty minutes, with a teaspoonful of salt in a pint of water. To make mutton broth, take one pound of lean, juicy mutton, chopped fine.—*Therapeutic Gazette*.

#### Case of Chronic Sulphur Poisoning.

IN the *Berliner klin. Wochenschrift*, EICHBAUM reports the case of a man 37 years old, who has been using continuously for eight years a sulphur ointment on his scalp, which was affected with a very copious formation of scales. The pomade was employed every second day, and about three and a half ounces are supposed to have been used. The symptoms began with a feeling of stiffness in the neck; the face was pale, and the brow covered with sweat. Both pupils were dilated, and did not react either to light or to an irritation of the skin; the tongue was somewhat tremulous. The head was drawn a little to the right and behind, and the muscles of the right half of the neck, especially the superficial muscles, felt specially hard and tense. By the exercise of repeated powerful movements of the

head, the rigidity gradually yielded. The patient complained of pain in the back part of the head, of a disposition to vomit, and oppression in the chest, and slight tenderness upon pressure in the epigastrium. The pulse was 124, and very small; respiration 16. After a rather restless night his condition improved. It was ascertained that the patient had suffered from headaches before, which were subject to exacerbations at irregular intervals. An attack similar to the one just described had occurred some weeks before. Eichbaum supposes that the patient was poisoned with sulphuretted hydrogen, as under the influence of fat and heat a decomposition of the ointment takes place, with the formation of sulphuretted hydrogen. The latter he supposes entered the body in part through the scalp, and in part through the lungs.

The patient was advised to discontinue the use of the ointment entirely, and to take a course of warm baths, abundant exercise in the fresh air, and the like. The symptoms of the disease gradually subsided, and in about four weeks there was no sign of the disease to be seen.—*Med. and Surg. Reporter*.

#### A Perfect Insect Powder.

UNDER the name *Poudre insecticide perfectionnée* a new and very efficacious insect powder has been introduced into the European drug trade. It consists simply of pyrethrum flowers to every 100 parts of which by weight, 1 part of naphthalin has been added. The naphthalin must be in very fine powder and intimately mixed with the pyrethrum. As a great deal of insect powder (in bulk) now found in the market is scarcely worthy of the name, we would suggest that our readers may avail themselves of the information here given, and convert such stock, if they chance to have



any of it on hand, into a valuable and rapidly selling article. A specimen of a powder sold by an itinerant vender to a restaurant-keeper in this city a short time ago, and found to be very efficacious against roaches especially, was on examination by the writer found to consist of pyrethrum mixed with borax in exceedingly fine powder. Borax alone is a good blatticide.—*National Druggist*.

## DISEASES OF THE NERVOUS SYSTEM.

### Neuritis.

A CASE of neuritis involving the sciatic and crural nerves of one side, accompanied by loss of power and wasting of muscles, was recently presented at the Jefferson clinic, and the following plan of treatment advised: R. Syr. calcii lactophosphatis, f 3 j; liq. potassii arsenitis, gtt. iij. M. Sig.—Ter die. Also of ol. morrhue, 3 j ter die.

Locally, to lessen congestion, a constant, descending, stabile galvanic current as strong as could be borne was advised to be used to the affected nerves; faradism, if need be, to exercise the muscles; and for the pain, if it became at any time necessary, the hypodermatic injection of cocaine in the vicinity of nerve.—*Coll. & Clin. Record*.

### The Treatment of Headache Caused by Chronic Pharyngitis.

VERGELY recommends the following application to the throat by a camel's hair pencil, followed by a gargle of warm salt water: Glycerin, tinc. iodin., aquæ destil., āā ʒ 75; potass. iodid., cocain. hydrochlor., āā gr. 7½.

In general treatment quinine in 8-grain doses, with 30 grains of potassium bromide was given. Aconitine or morphine may also be employed.

When anæmia is present the following pill may be used to advantage:

Ferri oxalat, gr. 1½; ext. rhei, gr. 1-6; ext. nucis vom., gr. 1-20.—*Revue Gén. de Clin. et de Thérap.*—*Medical Age*.

### On the Use of Strychnine as a Hypnotic.

T. LAUDER BRUNTON, M. D., F. R. S., says that excessive fatigue, bodily or mental, but especially that which follows intense mental strain or worry, is perhaps the most intractable of the causes of insomnia. It occurred to the author that if he could convert the condition of over fatigue into one of simple fatigue, sleep might come without the aid of a hypnotic. He selected strychnine as being the most powerful of nerve stimulants, and, giving it in the form of the tincture of nux vomica (minims 5 to 10) or the pure alkaloid (gr. 1-200 to 1-60), obtained most happy results without any disagreeable after effects. It was given at bed-time, and repeated in the course of an hour or two, if necessary. It is doubtful if the drug would act in insomnia arising from other causes, though in one case of sleeplessness associated with anemia, a good effect was apparently obtained.—*The Practitioner*.

### Antipyrin in Nervous Drowsiness.

DR. ADOLPH BLOCK relates the case of a young man with a neurotic family history, who complained of an irresistible inclination to fall asleep every day after lunch. The complaint had existed since an attack of typhoid fever, which he had two years previously. There was impairment of digestion, weakness of legs, itching in various parts of the body, and tenderness on pressure over the last three cervical and first three lumbar vertebræ. Under tincture of nux vomica the digestion improved and the drowsiness diminished; but eight months later there was a return of the drowsiness, accompanied

by headache and debility. Fifteen grains of antipyrin were prescribed in the morning on getting up, and again at 11 A. M. daily. In four days headache and drowsiness disappeared. The dose was reduced to 15 grains daily, given at 10 A. M., and the treatment alternately discontinued and resumed during the next 11 weeks. However, when the drug was stopped altogether the cure was complete and permanent. In this case antipyrin acted as a nervous stimulant like black coffee, only more active and with a more complete result.—*British Med. Journal*.—*St. Louis Medical and Surgical Journal*.

#### Physostigmin in Chorea.

L. REISS reports, in the *Berliner klin. Wochenschrift*, the result of his treatment of chorea and other hyperkinetic affections with physostigmin. He has obtained successful results from hypodermic injections of 1-60 to 1-20 of a grain several times a day. The duration of the disease was shortened in nearly all cases, and recovery sometimes occurred in five days. With the exception of vomiting, no bad effects of the drug were observed.—*Medical and Surgical Reporter*.

### DISEASES OF RESPIRATORY ORGANS.

#### Pneumonic Phthisis.

FOR a clinical case of pneumonic phthisis, Prof. DaCosta ordered the following prescription:  $\mathcal{R}$ . Digitalis pulv., gr. ss; cinchonidinæ sulph., gr. ij; opii pulv., gr.  $\frac{1}{4}$ . Ft. pil. j. M. Sig.—One t. d. In combination with this, cod liver oil and small blisters were ordered.

#### Phthisis.

A PILL containing the following is being used with very satisfactory results in phthisis by Dr. Stewart in the medical department of Jefferson Hospital. The

patients in the majority of cases immediately improve very decidedly:  $\mathcal{R}$ . Iodoform., gr. iss; ferri redac., gr. j; acid. arsen., gr.  $\frac{1}{50}$ . Fit. pil. j. M. Sig.—1 t. d.

#### The Turpentine Treatment of Consumption.

AT a recent meeting of the Paris Société de Thérapeutique, M. Bremond, after referring to his previous teachings concerning the benefit to the general nutrition resulting from ozonification of the air of patients' rooms by means of oil of turpentine, reported that he had lately tried the plan with phthisical patients. All of them had gained flesh in proportion to the duration of the treatment, and their general and local condition had improved, as shown especially by a very notable diminution of the number of bacilli in the sputa. In some arthritic patients favorable results had been observed.—*N. Y. Med. Journal*.

#### Treatment of Colds and Bronchitis.

IN the *Therapeutic Gazette*, Dr. H. C. WOOD discusses in a leading article the treatment of colds and bronchitis. When the cold is a widespread general one, involving the whole body in a condition which he regards as a form of subacute rheumatism, with aching pains and general wretchedness, he advises a free jaborandi sweat, followed by a few full doses of quinine. This, he says, will often liberate the sufferer at once, especially if the sweats are aided by mercurial or other purgation. For coryza, he says bismuth and cocaine injections into the nose almost invariably bring relief, though a vigorous dry shampoo may effect the same result.

In bronchitis, he says, the so-called expectorant remedies are of course indicated. These he divides into three groups: First, the narcotic expectorants, which are to be employed to allay excessive cough and quiet nervous irrita-

bility; second, the sedative expectorants to be used in the first stages of a bronchitis, to facilitate secretion and expectoration; third, the stimulating expectorants, useful in the advanced stages of a bronchitis when expectoration has already become free.

The ordinary narcotics, such as morphine and hyoscyamus, and the advantages and difficulties attending their use, he thinks are well known. Chloroform, however, he regards as one of the most valuable remedies that we have for quieting cough. In nervous or hysterical men or women, often the best expectorant mixture is one composed of pure narcotics. A very good home-made mixture for this purpose is one containing: Whiskey, paregoric, glycerine, of each  $\text{f } \frac{3}{4} \text{ ij}$ ; chloroform  $\text{℥ xxx}$ . M. Shake well before using, and take in teaspoonful doses *pro re nata*.

This mixture, he says, enabled patients to secure many a night's rest, by keeping a little bottle of it, tightly corked, at the bedside, and sipping it when necessary.

With regard to the use of hydrocyanic acid as a sedative, he seems to think that its action is so fugacious as to be untrustworthy in ordinary safe doses; while wild-cherry bark preparations he regards as certainly useless.

The older depressing expectorants he thinks have little power, unless given in nauseating doses, and in their stead he has come to use very largely the citrate of potassium. Of the following prescription, he says that he thinks any one who will use it will never give it up, unless some remedy of greater power be discovered:  $\text{℞. Potas., citr., } \frac{3}{4} \text{ j}$ ; succi limonis,  $\text{f } \frac{3}{4} \text{ iss}$ ; syr. ipecac,  $\text{f } \frac{3}{4} \text{ ss}$ ; tr. opii cam.,  $\text{f } \frac{3}{4} \text{ ij}$ ; syrup, q. s., ad.  $\text{f } \frac{3}{4} \text{ iij}$ . M. Sig.—Dessertspoonful every two hours.

This dose is for robust men, and must be varied according to the

strength and peculiarities of the individual patient.

Of the older stimulating expectorants the only ones in which he still places confidence are the muriate of ammonium and syrup of garlic. When the citrate of potassium mixture fails, he habitually resorts to the muriate of ammonium, and has often seen very good results from its use. It may be given in capsules if the stomach is very sensitive, each capsule to be followed by a drink of water. The following furnishes the best disguise for the taste of the drug that he has been able to concoct:  $\text{℞. Ammonii chloridi, ext. glycyrrhizæ } \frac{3}{4} \text{ iss}$ ; glycerini,  $\text{f } \frac{3}{4} \text{ ss}$ ; mucil. acaciæ,  $\text{f } \frac{3}{4} \text{ ij}$ ; syrupi, aquæ, q. s. ad.  $\text{f } \frac{3}{4} \text{ iij}$ . M. Sig.—Dessertspoonful every two hours.

Syrup of garlic is so disagreeable to most patients that it is very rarely used. In his own practice, in ordinary cases, the only stimulant expectorants used besides the muriate of ammonium, are oil of eucalyptus, terebene, and oil of sandalwood, and occasionally oil of cubebs or copaiba. The doses of these remedies are so small, he says, and the taste of most of them so disagreeable, that they should always be administered in capsules. The oil of eucalyptus he is inclined to regard as the most efficient. It may be administered in an ordinary cold or a bronchitis so soon as free secretion has been obtained. Terebene is a little more stimulating than the oil of eucalyptus, and to be employed somewhat latter in the disorder (dose five minims). The oil of sandalwood is about equivalent to terebene, while the oil of cubebs is employed still later in the disorder—*Med. and. Surg. Reporter*.

#### The Deleterious Effects of Tobacco on the Throat and Nose.

DR. M. F. COOMES (*Columbus Medical Journal*). He considered smoking

far more injurious to these parts than chewing. The smoke came into the mouth heated, and loaded with an irritating oil that would soon coat the mucous membrane, were it not washed away by the saliva. Cigarette smoking is especially injurious, because the smoke is so universally inhaled, causing pharyngitis, laryngitis, and chronic irritation in the nose, not to mention the injury it may occasion to trachea and lungs. Where the smoke is habitually expelled through the nose, we find hypertrophies, congestion, dilated vessels, and a hemorrhagic condition. The smell is impaired or destroyed. The potash salts may also have some effect in adding to the injury. Ninety-five per cent. of smokers have something abnormal or unhealthy about the upper air passages. In bad cases, he found chronic hyperæmia and inflammation of epiglottis with congested cords, and hacking cough to remove the tough mucus; the voice tires easily.

#### Localization of Sensation in the Throat.

DR. SCHEIDEWALDT, from a number of experiments, comes to the following conclusions: 1. The pathological and physiological localizations of sensations in the throat are very imperfect. 2. The perception of touch of the different organs can hardly be distinguished from one another by the patient. 3. The different sensations are all referred to one region, namely, the anterior part of the *regio laryngo-trachealis*. 4. The proofs of this statement are (a), physiologically, by exciting the different parts with a probe; (b), pathologically, by the different causes which give rise to coughing; these are all referred to this particular part of the throat. 5. Hence, when patients complain of sensations in this part, it is well to make a careful examination in order to find the exact seat of

disease. 6. Experience has taught that most generally the pathological disturbances are situated in the choana, but which the patient wrongly places in the *regio laryngo-trachealis*—*Medical and Surgical Review*.

#### Benzoate of Sodium in Acute Follicular Tonsillitis.

L. C. BOISLINIERE, Jr., in a communication to the *St. Louis Courier of Medicine*, says that in upwards of one hundred cases of acute follicular tonsillitis, the following formula has been used: Sodii benzoat., 3 i-iv; glycerini; elix. calisayæ, āā f ʒ j. M. Sig.—One teaspoonful every one or two hours.

In the analysis of the last seventy-five cases, he finds that: 1. By the use of benzoate of sodium the disease is cured in from twelve to thirty-six hours, a great gain in time, as the average duration of the disease has been heretofore from two to five days. The average duration for the seventy-five cases was twenty hours. In private practice, when the cases could be watched more carefully, the white cheesy points have been frequently seen to disappear in from eight to ten hours. 2. The benzoate of sodium undoubtedly controls the febrile elements in the disease. 3. It may be given with impunity, even to children; he has never been able to discover any bad or even disagreeable effects from its action. 4. It is a valuable addition to the remedies used in throat affections, especially in an acute inflammatory condition of the tonsils, when applications only aggravate, and gargles increase the trouble.—*Medical and Surgical Reporter*.

#### Gargle for Chronic Pharyngitis.

ENELER recommends the following solution as a gargle in chronic pharyngitis: Zinci sulphatis, gr. xv; aquæ



menth. pip, f  $\frac{5}{8}$  vj. M. Sig.—Use as a gargle four times a day.

He says that his own pharyngitis which had existed for three months, was cured after using this solution continuously for eight days; and that his patients obtained the same successful results. In especially sensitive persons a weaker solution may be employed. —*Berliner klin. Wochenschrift.*—*Ibid.*

#### Phosphate of Copper in Tuberculosis.

DR. LUTON, of Rheims, in an article in the *Revue Générale de Chimie Thérapeutique*, says that he is convinced that tuberculosis may be cured by phosphate of copper in a nascent state and soluble in alkaline media. In this combination the copper plays the specific role and the phosphorus acts as a dynamic agent only. He recommends the following formulæ:

1. Pills of the aceto-phosphate of copper: R. Neutral cupric acetate, grs. iij; cryastalized sodic phosphate, 3 ss; excip. q. s. ut fiat massa. Divide in pilulas No. xx. Ten such pills constitute a daily dosage to commence with.

2. Potion of aceto-phosphate of copper: R. Neutral cupric acetate, grs. iss; crystallized sodium phosphate, grs. xv; mucilaginous potion,  $\frac{5}{8}$  viii. M. The dose is a tablespoonful repeated p. r. n.

3. Hypodermic solution of phosphate of copper: R. Cupric phosphate (freshly precipitated), gr. 1-6; glycerin, pure, distilled water, of each, minims, xl. Mix at the moment of using.

Luton thinks that the initial dose should not be more than a decigram (1.5 grain) daily of the copper salt, and he adds that the specific medication should be supplemented by a special tonic to conform the cure and prevent relapses. He suggests the following tonic wine, which he calls "phosphated

wine of walnut": R. Extract of walnut,  $\frac{5}{8}$  j; phosphate of sodium,  $\frac{5}{8}$  ss; Malaga wine, O ij. M. Sig.—A tablespoonful after meals.

#### Laryngeal Cramp of Musicians and Speakers.

DR. THEODORE H. KELLOGG writes as follows in the *Medical Record*: The motor disturbances to which attention is invited in this paper, have, it is believed, received no formal description in treatises on laryngology, or in special works on diseases of the nervous system.

They may be defined as professional neuroses of motility, and they are to be classified in that large group of nervous diseases of which writer's cramp constitutes the most familiar type. Inco-ordinate and excessive action rather than loss of motion prevails in them, and hence Ross, not inappropriately uses the expression "professional hyperkineses" as a collective designation for all forms of professional cramp, and in accordance with this nomenclature the term laryngeal professional hyperkinesis has been chosen.

The etiology of these laryngeal hyperkineses is as evident as their pathology is obscure. Clinical observation has established, beyond all doubt, that excessive functional activity is a cause of various forms of motor disease in groups of muscles of the extremities, and in all parts of the body capable of nicely co-ordinated voluntary movements. The motor troubles of writers, musicians, telegraphers, and of a host of manual occupations, confirm this fact as regards the hands and arms, and the observation is renewed for the feet and legs in turners, ballet dancers, sewing machine workers, and in many other trades. It would be a contradiction of physiological analogy and of etiological law if a similar sequence of disease were

not to result from a like cause in the laryngeal muscles, which are capable of such complex associated movements.

The existence of the laryngeal professional hyperkineses might then be reasonably predicated on *a priori* grounds, but fortunately there are observed facts which form a basis for these disorders, and they will now be described. The symptoms and cases naturally fall under two main groups, which may be technically termed hyperkinetic and hypokinetic.

The hyperkinetic group is distinguished by spasmodic and inco-ordinate action of the muscles of the larynx, of muscles immediately associated in phonation or in similar acts. To this group belongs the first case of laryngeal professional hyperkinesis which came under the writer's notice. The observation was made some years ago in a professional flutist—a German about fifty years of age, of large frame and strong muscular development, and in the enjoyment of apparent good health. Flute playing in this instance was attended by spasmodic action of the adductors of the glottis, and of the tensors of the vocal cords, which were thrown into sympathetic vibration and produced a low-pitched and continuous sound, which was all the more annoying as it could not be prevented by any effort of will.

The only cause known for this affection was the too constant use of the instrument. The patient had made a common sense diagnosis of his trouble, which he called cramp in his throat, and in speaking of its cause, he said: "Das kommt vom zu viel blasen," and thus in a word he gave its true etiology. Gerhardt has reported a similar observation in a man who had already suffered from cramp of the arm, and the analogy between the two affections was thus very direct. In these instances

certain sets of laryngeal muscles are called into gentle and concentrated action, for there is naturally, the writer finds in his own use of the flute (and no doubt it is true for other flute players) a great contraction of the cricothyroids and of the adductors of the glottis. But when flute playing was carried to great excess in the above cases these muscles became hyperkinetic, and the constant spasms were such as to interfere with the patient's occupation.

It is well known that in writers the arm as well as the hand may become affected, and it is natural to suppose that in players on wind instruments neighboring muscles of the laryngeal group would become secondarily involved, and it is probable that in them labial, lingual, and laryngeal hyperkinesis may exist synchronously.

Strumpell has already put on record a case of clonic lingual spasm in a clarinet player, who was thus incapacitated for his occupation. Adequate inquiry would probably reveal many similar facts, and the writer has already had verbal accounts of like instances.

In this first hyperkinetic group should be classed also those cases called choked voice, which are, in reality, instances of expiratory adductor spasm from continued vocal strain; and cases of painful laryngeal contractions briefly alluded to by Sée, of Paris; and, in fact, all persistent spasmodic symptoms of the singing or speaking voice due to its immoderate employment.

Instances from a like cause in which the voice habitually breaks from a chest to a falsetto tone, may perhaps belong to this category also, though the supposition of the spasmodic contraction of the vocal cords and of their vibration between nodal points is not fully satisfactory, for it is well known that in unilateral paralysis of the adductors,

with vibration of the mere edge of the inefficient vocal cord, there is still falsetto phonation.

In this group, too, are to be included certain allied hyperkinetic conditions which are very rare and interesting. In these instances the rima respiratoria closes during expiration, and through involuntary action of the tensors of the inferior thyro-arytenoid ligaments, there are produced audible sounds, which receive accidental modification by the position in which the buccal, nasal, and pharyngeal cavities chance to be.

One such instance of expiratory tension of the chordæ vocales and of involuntary phonation has come within the writer's observation. A further symptom of interest in the laryngeal hyperkineses is that ordinarily the adductor spasm is excited only during forced expiratory efforts, and not during inspiration, even though it be voluntarily prolonged. To such an extent is this true that the patient may resort to the expedient of vocalization of the in-going current of air, and thus learn to speak solely with an inspiratory voice. It is probable that in time this inspiratory speech would become also spasmodic, though the only case known to the writer of spasmodic phonation during inspiration was in a stutterer whom he once treated, with only partial success, for some months.

It is well known that paralysis of certain laryngeal muscles may give rise to spasm of others, and when the laryngeal hyperkineses have been more thoroughly studied, it will likely become necessary to establish a mixed group in which paralysis and tonic or clonic spasm will be found to coëxist.

With this forethought as to future classification, the second or hypokinetic group of these disorders is mentioned. It is characterized by diminution or loss

of power in the laryngeal muscles as the result of continued over-use.

In this connection belongs an observation made by the writer, of a man in fair health, who, during a series of many months, and for several hours daily, read foreign languages aloud. This vocal action was forcible, and sustained with unusual voluntary effort. The final result was paretic loss of voice, with painful sense of fatigue. The laryngoscopic appearances were normal, and there were neither local catarrhal, nor general constitutional conditions to account for the symptoms. Voluntary reaction of the vocal muscles was simply lost through overstrain, as in the paralytic forms of professional cramp.

To this group belong some of those cases of loss of voice among professional singers and ardent aspirants to the operatic stage.

Teachers of vocal music speak of these cases as due to bad methods of voice training, and some of them are attended by inflammatory conditions, but a few cases free from all such complications can only be regarded as instances of hypokinesis of overtaxed laryngeal muscles. The paresis may simply reveal itself through inability to evenly sustain tones which may become clearly forced, tremulous, flat, or unmusical, or there may be loss only of a part of the range of the voice, as of the highest soprano or lowest bass notes. The defect of innervation in these instances presumably exists in the lateral crico-arytenoid, arytenoid, and thyro-arytenoid muscles.

In the description of the symptoms only expiratory forms of spasm have as yet been noticed, but it is likely that some inspiratory spasms and certain cases of aphonia spastica are to be numbered among the disorders in question, and that the extrinsic as well as the intrinsic muscles of the larynx are some-

times involved in these forms of hyperkinesis.

The main symptoms, then, may be briefly summed up as inco-ordination, paresis, tremor or spasm of laryngeal muscles, displayed especially in expiration and during phonatory efforts.

The pathology of all the professional neuroses of motility is, to say the least, hypothetical. The theories of the myopathic or peripheral neuropathic origin of these diseases do not adequately explain all the clinical facts. The influence of heredity is not to be overlooked in these cases, which occasionally present a distinct "diathesis spasmodica" from earliest childhood. Of course, this instability of nerve centres may be acquired as well as inherited.

The most plausible theory is that the laryngeal hyperkineses are of central origin—that the prime points of pathological irritability are, first, in cortical centres, and secondly, in the medulla oblongata itself.

The fact that the movements which become disordered are such as are voluntarily co-ordinated, and that they are uniformly initiated by cortical impulses, tends to confirm this view: A purely cortical phenomenon, too, is the painful consciousness of fatigue excited by the simple unexecuted idea of the customary movements.

The diagnosis of the professional laryngeal hyperkinesis is to be arrived at by a process of exclusion of certain well known pathological conditions. Thus there are to be excluded all forms of pressure on the pneumogastric nerves by enlarged glands and various tumors, and on the recurrent laryngeal nerves by thoracic aneurisms; also, diphtheritic, rheumatic, syphilitic, and other diathetic or toxic states, attended or followed by motor disorders of the larynx.

It is also necessary to eliminate the early laryngeal crises of locomotor ataxia, the aphonia of hysteria, certain reflex spastic states, cases of balbuties spasmodica, and the phonetic inco-ordination of general paresis. In regard to the latter disease, it is to be remarked that professional singers who become cases of general paresis may present laryngeal hyperkinesis as the initial phenomenon.

A noted negro minstrel who died of general paresis under the writer's care, had inco-ordination and spasm of laryngeal muscles months before the appearance of other symptoms, either psychical or somatic.

The differential diagnosis is not necessarily more difficult than in other cases of professional cramp which often have superficial resemblances to various motor disorders.

As the larynx, however, is less accessible to observation than the hand or other parts concerned in the professional neuroses of motility, the finer diagnosis of the muscles specially affected in any given case becomes admittedly somewhat difficult. In view of the great advances in modern laryngology, it is believed that it will soon be possible, in cases of speaker's cramp, as in those of writer's cramp, to decide with precision as to the muscles directly involved in every instance.

The prognosis in the laryngeal, as in other kinds of professional hyperkineses, is bad. The disease is usually of gradual development, and by the time that it is fully pronounced and recognized, it has assumed a chronic character.

In most singers and speakers attacked there is to be expected more or less permanent disability, and the exact prognosis will depend somewhat on the age and constitution of the patient, on



the duration of the malady, and on the willingness of the sufferer to persevere in the treatment prescribed.

The treatment of the laryngeal hyperkineses has at least one uniform indication, and that is, complete rest of the muscles affected. All forced expiratory acts like coughing, laughing, and crying should, as far as possible, be avoided, and above all things, voluntary use of the laryngeal muscles is to be forbidden.

Even the silent reading of musical scores common among singers provokes latent motor impulses, and is harmful.

In the case arising from the reading aloud of foreign languages above mentioned, even mental rehearsal of a few pages without vocalization excited a painful sense of fatigue referable to the larynx.

After attention to this first indication for functional repose, the observance of hygienic rules, change of climate and habits of life, hydrotherapy and topical treatment are in order.

Of local measures, electricity and laryngeal massage are perhaps the most effectual.

In conclusion, let it be said that this paper is simply a small contribution to the literature of rare neuropathic affections which would seem to have almost escaped recognition. If it serve to excite interest in a more complete study, its object will have been accomplished.

#### Cocaine as a Means of Differential Diagnosis.

In a communication to the *Wiener med. Wochenschrift*, Baumgarten expresses the opinion that if an infiltration in the larynx subsides for some time after being painted with cocaine, the diagnosis can be made of a catarrhal trouble. But if the cocaine produces no diminution in the swelling, nor paleness, then the disease is to be regarded

as serious; and if no diminution in swelling, nor pallor occur after some days, catarrhal troubles can be excluded.

#### The Influence of Nasal Disease on the Thyroid Gland.

AT the meeting of the Berlin Medical Society Professor FRANKEL mentioned an interesting case showing the influence of nasal irritation upon thyroid enlargement. The patient, a young man, aged 17, had an enlarged thyroid, with murmur on auscultation, and a pulse of 120, but no exophthalmos. During treatment (with the constant current) the lad complained of nasal obstruction; accordingly, with reference to the other symptoms, the left inferior turbinated bone was removed by the galvanocautery. Within a few days the thyroid gland rapidly diminished.

After waiting, three weeks, during which time the symptoms were stationary in spite of the constant current, the right side of the nose was operated on as above, four days before the case was reported to the meeting. During these four days the enlargement had again undergone a rapid diminution, and the pulse had become normal. The thyroid had diminished by certainly a fifth of its bulk. Hack, in 1886, had reported a complete cure of Basedow's disease by treatment directed to the nose. Although this case could not fairly be termed Basedow's disease, because both exophthalmos and v. Græfe's symptom (defective movement of the upper lid with the globe) were absent, it certainly showed, Professor Frankel argued, the influence of nasal irritation upon thyroid enlargement.—*British Medical Journal*.

#### Hoarseness of Singers.

PROFESSOR BARTHOLOW highly recommends diluted nitric acid for hoarseness of singers.—*Coll. and Clin. Record*.

## CONSTITUTIONAL DISEASES.

### Mediate Auscultation.

DR. JAMES K. CROOK says :

I am not in favor of a multiplication of instrument sin the practice of our art. We should make it our aim to be enabled to employ the implements with which nature has provided us in as extended a field as possible, as they are always at hand and ready for use. The artificial pleximeter and hammer, for example, I would discard entirely, as they are in nowise superior, and in some respects inferior, to the fingers of the two hands. But we have in the stethoscope a useful and, in my opinion, oftentimes an indispensable aid in diagnosis; and I would urge every one who proposes to treat diseases of the thoracic viscera to supply himself with one.

The binaural stethoscope has seemed to me to possess the following advantages: 1. It is far more convenient than the uniaural instrument, as we can employ it while standing or sitting erect in a natural and unconstrained position. 2. As the chest-piece is immediately in front of the face, we may keep it under constant observation and shift its position from point to point with the greatest facility. 3. By directing the patient to hold the distal extremity of the instrument between his fingers, we may have the free use of both hands for manipulation, as in performing auscultatory percussion, etc. 4. By closing both ears it excludes all foreign noises. For the foregoing reasons I invariably employ this instrument, and recommend it to students of physical diagnosis. Discretion should be used in the selection of a stethoscope. I fancy that many of the objections to the Camman instrument have arisen from the fact that the instrument employed was not at all suited to the auscultator's ears. Al-

ways see that the aural extremities of the instrument are arched to correspond with the external auditory canal. Do not have the ear pieces too large, or, on the other hand, too small to fit the meatus of the ear. The spring or rubber band which connects the ear pieces should be just tight enough to allow the ear tips to adapt themselves without discomfort to the ear. Different heads are of different diameters, and an instrument which would suit one would perhaps be totally unfit for another. See that your stethoscope is supplied with three chest pieces—a narrow, hard rubber piece for cardiac auscultation, a wide brimmed piece, also of hard rubber, for the lungs, and a soft rubber piece, which has an occasional application in very thin patients with many bony prominences.

Personally, I find the stethoscope of special importance in the following cases:

1. In auscultation of the veins and arteries of the neck. The adventitious sounds produced in these vessels, as, for example, in chlorosis, are often very circumscribed, sometimes being limited to a small space on one side of the neck. I have been able to detect these sounds and to map out their area with the stethoscope after they had altogether escaped the attention of the unaided ear. In auscultating this region, direct the patient to cease breathing temporarily, as the respiratory sounds may give rise to confusion, and do not make too much pressure over the large arteries, as it is sometimes possible to generate an artificial murmur in this way. The stethoscope is also of occasional service in making out and locating obstructions in the larynx and trachea.

2. In auscultation of the heart. A cardiac murmur can be heard with great distinctness by the unaided ear; but I believe it to be well-nigh impossible in

many cases to locate it or trace it to its point of origin by this means. It often happens that two or more murmurs are present at the same time in the heart, and it requires the nicest scrutiny to analyze them and refer them to their points of development. In immediate auscultation, the entire side of the head comes in contact with, and receives the impact of, the cardiac impulse as well as the ear. There can be no doubt that the angle of the jaw, the temple, and the zygomatic process may serve as conductors of sound, so that in immediate auscultation the sounds heard correspond, not to a space as large as the ear, but as large as the side of the head. This view was advanced by Laennec, and has not been concurred in by many subsequent observers, but experience leads me to believe in its correctness. Sometimes, also, the heart is acting so irregularly that we cannot even distinguish the systolic sound (the cardinal point in cardiac examinations) by auscultation. In using the stethoscope, however, we have the præcordial area directly before the eye, and we can thus often see the impulse of the heart against the chest, which corresponds in rhythm with the first sound. In females, aside from the question of decorum, it is frequently almost a mechanical impossibility to adapt the ear accurately to certain portions of the præcordial region. Imagine, for example, the difficulty of applying the ear to the mitral area of a female with a largely developed pendulous breast. We cannot afford using the stethoscope here if we wish to make anything like an accurate diagnosis.

3. In determining the size, and sometimes the number of pulmonary cavities. By a careful adjustment of the chest piece (the narrow one should be generally used here), we can often arrive at a very fair idea of the size of excava-

tions in the lungs and sometimes even of their number. Auscultatory percussion is useful in such cases. The patient may be directed to hold the chest piece *in situ*, which leaves both hands of the auscultator free. Percussion may then be made in the usual manner with a radius of half an inch or an inch from the rim of the stethoscope. By practice, the shades of difference in the percussion note may be appreciated with far greater distinctness by this means than through the medium of the ear. I feel assured that all who give this method a fair trial will find it far superior to the old fashioned method of Drs. Camman and Clark with the one ear wooden percussion stethoscope.

In addition to the foregoing you will sometimes find other conditions in which the stethoscope will be useful; as, for example, in skin diseases and in contagious diseases generally, in which you may have occasion to auscultate the lungs or heart. The advantage of this instrument in an examination for the fetal heart sounds needs no urging.

Except as indicated, I seldom use the stethoscope for pulmonary auscultation. It is of little special use in examining the posterior aspect of the thorax, for the reason that the physical signs of disease in this region, as, for example, in bronchitis, emphysema, asthma, pneumonia, etc., are not apt to be circumscribed, and the unaided ear has the advantage of being more rapid. This is a point of special importance in weak and debilitated subjects, whom we frequently have to support in bed while this region is being examined.—*The Post Graduate*.

#### Physiological Facts Briefly Reviewed.

DR. JEFF. D. WILLIAMS (*Medical Brief*):

Absorption is carried on by the process of exosmosis and endosmosis. It

depends upon the capillaries and lymphatics.

We have two kinds of absorption—extrinsic and intrinsic.

The skin, lungs and alimentary canal are the organs concerned in absorption.

The lacteals are the lymphatics of the small intestines. They absorb all nutritive matters and especially fatty matters.

The capillaries absorb glucose and albuminoids most especially.

Capillarity is generally regarded as attraction against gravity.

The richer the fluid in albuminoids, the higher it mounts by capillary attraction.

The more diffusible the liquids the more readily they are absorbed.

Blood deprived of its red blood corpuscles is regarded as lymph.

Nutrition is the vital power by which a substance maintains itself. It is a process of assimilation and disassimilation.

Assimilation is a process of endosmosis, disassimilation is a process of exosmosis.

In growth there is an excess of assimilation over disassimilation.

Febrin is said to be composed of globules of the colored corpuscles of the blood.

Fats, sugar, starch, etc., are ultimately converted into carbonic acid and water.

Urea represents the waste of the tissues and not the waste of the products of oxidation.

The lower the development and the younger the tissue, the more readily it is reproduced.

Epithelial tissue most easily reproduced. Next in order osseous and fibrous.

Muscular, nervous and the compound tissues are most difficult of reproduction on account of their adhesiveness.

The phenomenon of death is brought

about by the want of nutritive blood and the inability of the tissues to appropriate it when present.

Asthesia, or cessation of the heart's action; anæmia, or want of nutritive blood; asphyxia, or cessation of the functions of the lungs, and coma, or that condition wherein the brain is affected, are the different modes of death.

Nutrition demonstrates constant chemical transformation.

Heat is a molecular motion transmitting a similar motion to neighboring objects, and is the cause of all vital force and phenomena.

When a solid is heated, it expands, liquefies and then evaporizes—the atoms being drawn further and further apart.

Enough heat to raise 1 pound of water 1° F. is understood to be the unit of heat.

The sources of heat are the sun, mechanical, chemical and the clasping together of atoms.

Heat is communicated because all forces seek their equilibrium. It is communicated by radiation, contraction and convection.

Radiant heat is transmitted, absorbed and reflected.

The best absorbers of heat are the worst reflectors, and vice versa.

The metals are the best conductors.

Absolute contact is necessary for conduction.

Heat is lost by radiation, conduction and evaporation.

When a solid is transformed into a liquid or a liquid into a gas, a large amount of heat is absorbed from the surrounding object.

Animal heat is generated in the body chiefly by the oxidation of C. and H.

H. produces more heat than C.

The more vascular an organ, the more heat evolved.

The heat of the body is chiefly regulated by the skin through the perspira-



tion, and the perspiration by the vaso-motor nerves.

The greater the functional activity the greater amount of heat produced.

A warm blooded animal is one of constant temperature, while a cold blooded animal is of variable temperature—depending upon the surrounding temperature.

Birds have the greatest temperature, ranging from  $105^{\circ}$  F. to  $110^{\circ}$  F.

In a state of hibernation the animal lives chiefly upon oxygen and his own fat. Respiration, temperature and all the functions of life are greatly reduced.

In cholera the temperature may fall as low as  $80^{\circ}$  F., and in tetanus it may rise as high as  $111^{\circ}$  F.

$113^{\circ}$  F. would prove fatal on account of the disturbance of the nutritive process.  $75^{\circ}$  F. would prove fatal on account of the excessive diminution of heat.

Heat coagulates the blood and the myocin of the muscles.

In disease, if the temperature does not range over  $101^{\circ}$  F. the attack is mild.  $102^{\circ}$  F. to  $103^{\circ}$  F. severe.  $105^{\circ}$  F. to  $108^{\circ}$  F. very severe, if not fatal.

$98^{\circ}$  F. is about the normal temperature.

The rising of temperature after death is due to conduction.

Phosphoric lights are due to unoxidized phosphorus in putrid substances, and are mostly seen in warm weather.

In all chemical changes there is more or less development of electricity.

#### Improved Method of Making Suppositories.

SOME time ago Mr. ADOLPH VOMACKA, the accomplished pharmacist and editor of the *Rundschau* (Prag), contributed to his journal a new and improved method of making suppositories of those medicines which do not easily or thoroughly incorporate with cacao butter under the

old process (such, for instance, as green extracts, iodoform, etc.). Very recently M. Leboutte, a Belgian pharmacist, contributed the same, as original, to the *Bulletin* of the Pharmaceutical Society of Brussels. It is as follows: Reduce a sufficiency of cacao butter to a powder in a mortar, mix the medicinal agent, and add a small quantity of soap. When the whole is reduced to a powder, add a small quantity of water and work up the mass as though pills were to be made. Divide and make into cones in the usual manner.—*National Druggist*.

#### Terpinol Pills.

TERPINOL, the new antiseptic derivative of turpentine, is coming rapidly into practice not only in Europe but in America. Benzoate of ammonium is one of the remedies with which it is combined in prescriptions, especially in pill form. Considerable difficulty was at first experienced in making the latter, and the following, sent by O. Kaspar to the *Chemist and Druggist*, is the best solution of the difficulty we have yet seen: Take of terpinol, 10 parts; ammonium benzoate, 10 parts; ceræ flav. ros., 10 parts; pulvis constituens, 10 parts; glycerin, tragacanth, q. s.

The pulvis constituens, constituting the fourth ingredient, consists of equal parts of gum arabic, sugar and powdered althea. The only difficulty about this formula is that it makes rather a large pill.—*National Druggist*.

#### The Solubility of Boric Acid.

ACCORDING to Schultz calcined magnesia has the property of forming with boric acid a salt composed of several molecules of the acid to one of magnesium oxide. According to Mansier the solutions consist in a dissolution of polyborate of magnesium in the dissolved boric acid, or *vice versa*. The desired

quantity of boiling water is poured on a mixture of magnesia and boric acid placed in a covered vessel. Boric acid, 50 grams ; calcined magnesia, 1.25 grams ; distilled water q. s. ad 1 litre.

By adding 1.25 grams of magnesia to every 10 grams more of boric acid we have : Boric acid, 120 grams ; calcined magnesia, 10 grams ; distilled water q. s. ad 1 litre.

This solution remains clear at 15° C. When 1.50 grams of magnesia are added for each 10 grams of boric acid there is no precipitate at 12° C.

These solutions may be used for washing out the bladder, and for general dressings. For some time Guyon has used a solution of 50 grams to the litre, maintaining this degree of concentration by the addition of 5 grams of borate soda, provided the temperature of the solution does not fall below 18° C.—*Jour. American Med. Association.*

#### Administration of Quinine.

A CORRESPONDENT writing to *Medical World*, gives the following formulæ: Arsenic in tablet, powder or pill, or, if liquid form be desired, Fowler's Solution undoubtedly stands second only to quinine in the treatment of malarial disorders, its especial field being in the chronic forms. I find it can usually be given in much larger doses than are ordinarily prescribed, and that it is both palatable and efficient. Quinine is the standard remedy after all, the typical specific in all phases of malarial diseases. Quinine is most active given in solution.

*Tonic Pill* (DR. AIKEN'S).—℞. Quininæ sulph., gr. j; acidi arseniosi, gr. 1-50; strychninæ, gr. 1-50; ferri redacti, gr. 2-3. M. S.—One pill.

*Pill Quinia et Strychnia Comp.*—℞. Quininæ sulph., gr. j; ferri redacti, gr. j; strychninæ, gr. 1-50; acidi arseniosi, gr. 1-20. M. S.—One pill.

*Pill Quinia, Phosphori, Ferri et Nucis Vomicae.*—℞. Ferri carbonatis, gr. j; quininæ sulphatis, gr. j; phosphoric, gr. 1-100; ext. nucis vomicae, gr. 1-4. M. S.—One pill.

*Pill Quinia, Aloes et Strychnia Comp.* (HUBBARD'S).—℞. Quininæ sulph., gr. iss; pulv. aloes soc., gr. 2-3; piperini, gr. 2-3; strychninæ sulph., gr 1-40. M. S.—One pill.

*Pill Quinia Comp. et Ex. Taraxaci.*—℞. Quininæ bisulph, gr. 1 1-2; ferri sulph. exsic, gr. 2; acidi arseniosi, gr. 1-24; ext. taraxaci, gr. 1 1-4. M. S.—One pill.

*Pill Neuralgic* (DR. GROSS).—℞. Quininæ sulph., gr. 2; morphinæ sulph., gr. 1-20; strychninæ, gr. 1-30; acidi arseniosi, gr. 1-20; ext. aconiti. fol., gr. 1-2. M. S.—One pill.

#### Personal Health-Rules in Time of Cholera.

SANITAETS RATH DR. PAUL SACHSE, of Berlin, acting on what he believes to be a well-grounded supposition that cholera is due to the cholera bacillus, has made out a list of personal health-rules to be freely distributed in time of cholera, so that "every one can carry a copy in his coat pocket, and hang one on his mirror, or on the wall, like a calendar." The rules that he advises are as follows:

Cholera is caused by infection with the microscopic organism called the comma-bacillus, on account of its peculiar form in cholera. These get into the human intestine, increase rapidly under favorable circumstances, and cause the peculiar symptoms of cholera. This begins always with an apparently harmless diarrhœa, which continues for several hours before the disease breaks out with force and becomes dangerous to life.

The possibility of infecting one's self in time of cholera with that bacillus is increased a thousandfold by assem-

blages and inter-communication of people. The outbreak of the disease is favorably influenced by everything that causes any stomach or intestinal affection.

Since we have no absolutely certain means of controlling the disease after it has broken out, we should especially beware of becoming infected, and should take all precautions to kill, or at least render as harmless as possible, the cholera germ before it gets into our bodies, and, by a regular mode of living and prudent deportment, avoid anything that disorders the digestive apparatus.

Since the cholera germs get into the stomach through the mouth, and from the stomach into the intestines, we should take care :

1. To take only cooked food and drink. This is the most important rule. Even the washing, rinsing, and bathing water should be free from germs, and the water from the wells should never be used, but only that from the city pipes.

2. To keep the body clean, and especially the hands, by frequent washing, especially before meals, and this should be done with disinfecting solutions, such as a 5 per cent. solution of carbolic acid (or a  $\frac{1}{3}$  per cent. solution of sublimate), and of this, in time of cholera, at least a quart should be used for washing the hands.

3. To live judiciously and carefully in time of cholera, and

(a) Not run away!

(b) Not to harbor people from cholera places.

(c) Not to visit a house in which there is cholera.

(d) Still less eat or drink anything in such a house.

(e) Especially, to take nothing, food, linen, laundry, playthings, or anything else, from a house in which there is cholera.

(f) To avoid in every way any thing that may disturb digestion; therefore :

Avoid taking cold, and sudden cooling off after being heated.

Do not sit up late at night with friends (drinking cold beer, for example).

Do not wear clothing that is very thin, and do not take off under-clothing suddenly.

On no account bathe in running water. Water courses often bear the germs of cholera.

Avoid collections of people, fairs, festivals, etc., of every kind.

4. All kinds of food are to be avoided that may cause catarrh of the stomach and intestines; so also over-eating and over-drinking are to be avoided.

Every one should take the greatest precaution with regard to what comes into the house.

What may one eat and drink? What is forbidden? What allowed?

<i>Forbidden!</i>	<i>Allowed.</i>
Unboiled water!	Boiled water, with cognac, arrac, or red wine.
Raw milk and raw cream, and sour milk and whipped cream!	Good soda or seltzer water, and natural mineral waters.
Butter and buttermilk!	Red wine.
Freshly baked bread!	Good lager beer.
All cold soups.	Coffee, tea, and cocoa.
Raw meat.	Baked bread must be heated for at least half an hour in the house before it is used!
Cold, cut meat that has stood for a long time.	All hot, well-cooked soups.
Salads of every kind.	All hot (boiled, stewed, roast) meat.
Mayonnaise & crèmes.	All cooked vegetables (potatoes, rice, macaroni, asparagus, green peas, cauliflower, etc.)
Raw fruit and unfermented fruit-juices.	Freshly cooked, warm compotes
Cheese.	Eggs, and food made of eggs.
Cookies.	Puddings.
Ice.	

*Good Daily Diet.* — Morning. 1st. Breakfast: Coffee, tea, or cocoa (with or without boiled milk), eggs, bread

(that has been well heated and dried in an oven or stove for half an hour (in other words, bread that has been cooked a second time) *without* butter.

2d. Breakfast : Bouillon with egg, bread as above, warm meat, wine.

Noon meal: Hot soup, boiled or stewed meat, roast meat, vegetables, fresh cooked compote, red wine or good beer.

Tea: Coffee or tea.

Supper: Tea, or soup made from the meat left over from the noon meal, with the morning's bread, or warm meat. Wine or beer as above.

5. Every irregularity of the body should be most strictly guarded against in time of cholera. Apparently slight diarrhea should not be neglected, but a physician should be consulted immediately.

Sachse suggests that in case of threatened invasion of cholera these rules should be printed in the newspapers, journals, etc., in addition to being printed on slips for public distribution. (The more important parts of these rules should be printed in bold black faced type. The large foreign element in America would render it necessary that these rules be printed in other languages than English. For the German, the rules may be copied *verbatim* from the original.)—*Deutsche Medicinische Wochenschrift*.—*Medical Register*.

#### **Boldine, a New Hypnotic.**

THE glucoside boldine, which is contained in boldo leaves, is said, by French experimenters who have studied it, to have hypnotic properties. It is easy to take, has no bad after effects, increases the appetite and at the same time strengthens the patient. Doses of seventy-five and one hundred and fifty grains were administered to different patients by Juranville daily, without in-

jury resulting. The sleep which is induced is like natural sleep, and respiration is regular and quiet. Excited, hysterical and other nervous patients who had suffered for a long time with sleeplessness, sank into a refreshing, quiet slumber under the use of boldine. It is given in capsules containing three grains, or hypodermically dissolved in water.—*Deutsche Med. Wochenschrift*.

#### **Experience Among Russians in the Treatment of Small-pox.**

REIMER (*Archiv für Kinderheilkunde*) says his experience includes the treatment of thirteen hundred cases. When the pustules were covered with Weidenbaum's ointment (consisting of mercurial ointment, soap, and glycerine) they developed rapidly, but very painful irritation resulted, and the febrile process was not shortened. With a solution of India-rubber the children complained of great burning, and in four cases septicæmia resulted. Nitrate of silver applications seemed only to make the scars deeper. Hebra's iodine bandage caused great pain. The pustules became confluent in great scabs, which soon fell off, but the application had slight influence in respect to scarring. In forty-six cases applications of sublimate were made with great care. A mask was moistened with a solution of 1 to 500, and applied to the face four times daily for periods of ten minutes each. The development of the pustules was hastened thereby, but there was no perceptible influence upon the scarring process.

Schwimmer's paste of carbolized oil was found difficult of application upon a mask. A paste was then made from carbohc acid, talc, chalk, and starch, and applied four times daily in seventy-seven cases. The results were unfavorable. In thirteen cases there were



symptoms of carbolic acid poisoning ; in twenty-six there was nephritis, and in seven hæmaturia. Burkhardt and Zulzer's treatment with xylol was tried in fifty-two cases without any effect as to the scars. Other methods were equally unsuccessful. Salicylic acid was then tried in fifteen cases, as recommended by Schwimmer and Claridge, five grains being given every two hours, and in all the cases the duration of the disease was shortened. Microscopical examination of the blood in the early stages of the disease showed that after six days' treatment with salicylic acid the rod-like bacteria which had previously been found had disappeared.—*Archiv. of Pediatrics.*

#### **Plea for Small, Frequently Repeated Doses.**

DR. CHAS. C. PARTRIDGE, of Kansas City, says, when he first started out in medicine he hooted at the idea and doubted that a minim dose of ergot repeated every hour would have a contractile effect upon the womb and that it would control a hemorrhage from that organ, until he was led to try it. A minim dose of tincture of aconite repeated every hour or two will frequently cut short an attack of capillary bronchitis or pneumonia in children. No less an authority than Sidney Ringer claims this, and yet we know that often it is prescribed in larger doses, although it is a powerful cardiac depressant. Who, he says, has not witnessed the wonderful effects of this drug in minim doses in cutting short an attack of quinsy ? A minim dose will act just as well in the latter case, repeated every hour, as three or five minims will. If any one doubts it, he advises him to try it and be convinced.

Ten years ago, he says, we thought that it was absolutely necessary to give from five to ten grains of calomel in order to get good cathartic effects from

this drug and yet we can get just as satisfactory results to-day from the 1-20 of a grain repeated every hour as we can from giving five or ten grains.

Again, take the new and valuable drug, antipyrin, ordinarily prescribed in fifteen grain doses every two to three hours until the temperature falls. He says he recently, in a case of acute articular rheumatism, gave eight grains three times a day, and obtained toxic effects, although the patient's suffering was allayed, but found it necessary from the photophobia and other symptoms of disordered vision to reduce this dose to four grains at night, when these symptoms disappeared. In fever, no matter of what nature, one grain every three hours will produce very soon a slowed pulse and copious diaphoresis. He says his experience justifies the statements made.—*Kansas City Med. Index.*

#### **DISEASES OF THE NERVOUS SYSTEM.**

##### **External Application of Sulphur In Sciatic Neuralgia.**

A FEW years ago, in the Therapeutical Society of Paris, a discussion arose as to the best treatment for sciatica. Of course numerous methods were brought forward. The most novel, however, was one suggested by Mussy. This treatment, said Mussy, had been used in England with great success.

The method simply consisted in laying the affected limb or part in a bed of the flowers of sulphur, which was spread upon a cloth. How the sulphur acted was not known, but it was noticed that the urine was strongly odorous of sulphureted hydrogen.

The treatment was followed by speedy relief, and, as a rule, the patient was entirely free from pain in less than twenty-four hours.

Mussy told of a case where the valet of a certain ambassador had been

seized with a most violent attack of neuralgia. On the following day the ambassador was to leave the city on a long journey, and was in great distress for fear that his servant could not accompany him. Mussy, having been called, immediately prescribed the external application of flowers of sulphur, and on the following morning the recovery was complete, and the servant was able to undertake the journey, to the great satisfaction of his master.

Duchesne has recently adopted this treatment, and its use has been always attended with marked success.

He tells, among others, of the following case:

A lady, aged about 48, and of good constitution, had been for some time past a most horrible sufferer from frequent and violent attacks of sciatica. She had tried innumerable remedies without ever finding any lasting relief.

Duchesne at once made an application of the flowers of sulphur to the affected parts. The limb was embedded in the drug and covered with a cloth. In the morning, much to the patient's satisfaction, the neuralgia had entirely disappeared. Several years have now elapsed, but there has never been a sign of the neuralgia's returning.

The treatment is both harmless and easy, and is apparently attended with the best results, and is therefore worthy of the attention of the profession.—*Journal de Med.*—*World's Med. Review.*

#### Sulphonal, a New Hypnotic.

THIS substance is "diethylsulphondimethylmethan," an oxidation product of the union of ethyl mercaptan with acetone, and has, therefore, the composition represented by the formula  $(CH_3)_2=(C_2H_5SO_2)_2$ . We owe its discovery to Professor E. Baumann, of Freiburg, and its therapeutical appli-

cation, or, rather, some knowledge of its remarkable physiological properties to Professor A. Kast, of Freiburg, who has a long article on the subject in the current issue of the *Berliner Klinische Wochenschrift*, in which he has nothing but praise for this new addition to the materia medica. The term "sulphonal" is due to a happy suggestion of Herren Fr. Bayer & Co., Elberfeld, who supply it. This substance crystalizes in large colorless tablets, and is perfectly devoid of taste and smell. It dissolves in 18 or 20 parts of boiling water, in 100 parts of water at the ordinary temperature, and is easily soluble in alcohol or alcoholic ether. It is not affected by acids or alkalies, or by oxidizing agents either in the cold or warm. Thus, concentrated sulphuric acid with heat scarcely affects it, and it resists fuming nitric acid, and even chlorine and bromine; it is, therefore, a very stable body. Twenty experiments with sulphonal on healthy men showed that doses of three or four grams were borne by adults without the least discomfort or disagreeable after effect. Thus, a medical man, aged 28, took 3 grams (46 grains) at 4 P. M., and at 6.15 P. M. began to feel sleepy, with a feeling of heaviness in the head. At 6.15 these feelings lessened, but at 8.15 they increased somewhat. At 9.15 the subject of experiment went out for the evening, having resisted the inclination to sleep. He passed a tranquil night afterwards, and felt no after effects of any kind. Another medical colleague sank into a sound sleep lasting several hours. The time of day and the meals were found to influence the action of sulphonal very much.

Employed medically the drug has been given to 60 patients, and 300 observations of its effects were made. (Professor Cramer gave it 200 times in

the Marburg Lunatic Asylum.) The results, almost without exception, were that the patients sank within from half an hour to two hours into a tranquil and sound sleep, lasting from five to eight hours, and awoke feeling perfectly comfortable. A few felt tired and sleepy next day. The digestion, pulse and temperature were unaffected, and it is curious that no ataxy of any degree or kind was present, whereas this was the most prominent symptom in dogs after large doses. The ordinary dose for man is two grams (half a dram). Professor Kries has examined the effect of sulphonal on the blood pressure, and has established the fact that in dogs, even after very large doses, the blood pressure is not lowered. Poisonous doses in dogs, to determine the mode of death, caused severe convulsions, then, after a few hours, a heavy sleep, deepening to coma, and ending in death in about ten hours. Spectroscopic and microscopic examination of the blood revealed no alteration of its elements. Sulphonal appeared most efficacious in cases of sleeplessness in nervous subjects, but was given with benefit in all kinds of cases, including even cardiac valvular disease.—*British Med. Journal*.

#### Muscular Atrophies and Hypertrophies.

DR. LANDON CARTER GRAY, in an article published in *N. Y. Medical Journal*, concludes as follows:

*Treatment.*—The treatment of all the different forms of disease of the neuromuscular apparatus is essentially the same in its general principles, except that the acute forms of myelitis of the anterior horn may be accompanied by reflex disturbances calling for special treatment—such as fever, coma, convulsions, etc. In the main, however, the therapeutic items are these: Rest, electricity, massage, and drugs.

Rest is of prime importance to a muscle or nerve degeneration from any cause whatsoever. I have never yet failed to obtain some improvement by rest in any case of muscular atrophy if there was any muscular tissue remaining. The rest should be proportioned to the extent and acuteness of the disease. In wide spread or acute atrophy rest should be absolute in bed for weeks, or a month. In more localized disease the rest need not be so radical. In every case, however, and at every stage it should be borne in mind that fatigue is to be avoided.

The electrical treatment should be by means of galvanic, faradaic, and static currents, and should be addressed to the spinal cord, the motor nerves, and the muscles themselves. Galvanism of the spine should be by means of large electrodes, one being placed over the upper cervical region and the other in the lower dorsal, and the duration of the application should be from five to ten minutes, and the current should vary from five to thirty milliamperes. It will be observed that I am no believer in the short applications and feeble currents that are so much vaunted by the German authorities. Patients become used to electricity as they do to any drug, with this difference—that the larger doses of electricity, unlike the larger doses of many drugs, will cause no ill effects. But the idiosyncrasy of each patient will vary in regard to the quantity of electricity that can be taken, and this must be ascertained. Usually, however, the strength will vary between the figures I have mentioned. Galvanism and faradism should be applied to the affected nerves and muscles at what are known as the “motor points,” a description of which can be found in any text book of electricity. The motor points will indi-

cate the nerve trunks and the motor filaments going into the muscles, and it is precisely at these spots that galvanic and faradaic currents must be applied. Here the quantity of galvanism should be much smaller, and should vary from two to ten milliampères, care being taken not to cause any painful sensation. A gentle faradaic current will be quite sufficient, and the application should be from five to ten minutes. In some cases I have derived considerable benefit from an application of the gentle faradaic current from thirty to sixty minutes, flat sponge electrodes being fastened on to the affected muscles by means of elastic bands. Static electricity will be found of use in certain cases of greatly atrophied muscle, and, as Charcot has pointed out, contractions can sometimes be obtained by this form of electricity, when it is impossible to obtain them by galvanism or faradism.

Massage can be used with great advantage in the chronic forms, or in the chronic or later stages of the acute forms. It should always be limited in duration from five to twenty minutes, and should be very gentle, special care being taken not to gripe the muscle or irritate it mechanically in any way. Massage is, however, a very uncertain agent, in spite of all the praise that it is nowadays the fashion to bestow upon it, and it should be carefully determined in each individual case as to whether the manipulation of the muscle is beneficial or not. In some cases it is positively harmful, and in these it should be abandoned.

Except in the acute or subacute forms of myelitis of the anterior horn and progressive ophthalmoplegia, drugs are usually of little use, and we can only employ them empirically. Iodide of potassium, ergot (either in the form of the fluid extract or in that of ergotine),

and strychnine may be used, but I am bound to say that I have never seen any tangible effects from them.

#### **Methylal Subcutaneously in Delirium Tremens.**

KRAFFT-EBING, after using methylal subcutaneously in twenty-one cases of delirium tremens, finds that it is the best agent for producing sleep in this affection, especially if there is an anæmic condition of the nervous system. Not so valuable where there is hyperæmia.

#### **Prescription for Headache.**

DUJARDIN-BEAUMETZ recommends the following: *Rx.* Caffeine, gr. iv; salicylate of sodium, gr. iv; hydrochlorate of cocaine, gr. iss; water, f 3 ij; syrup, f 3 vss. *M.* Take the whole at one dose at the beginning of the attack.

### **DISEASES OF THE URINARY ORGANS.**

#### **Arterial Pressure in Bright's Disease.**

At a meeting of the Medical Society of London, Dr. BROADBENT read a paper on the prognostic significance of the blood pressure in acute renal disease. (*Lancet.*) He said that though high arterial tension was present in almost every form of kidney disease, yet he had twice seen low tension when symptoms of renal cirrhosis were present. In acute renal dropsy, when the pulse beats were short and easily arrested, it indicated temporary dilatation and weakness of the left ventricle; from this the heart afterwards recovered. A continued defect of tension might be due to persistent cardiac weakness, and in this latter was of unfavorable prognostic import; in other cases it indicated diminished peripheral resistance, and this also was of bad augury. He quoted the case of a carman, of sober and steady habits, who was admitted into St. Mary's Hospital with acute renal dropsy of four days'



duration. His mother had been of in-temperate habits, and he had undergone privation two years previously, but no exciting cause of the attack could be found. He had swelling of the face, scrotum, and extremities, a bad cough, and solid, albuminous urine, containing epithelium and casts. The temperature was abnormal; the pulse 64, short, and weak. The first cardiac sound was short, the second weak, and there was extension downwards of dullness. Dr. Broadbent pointed out that the most certain cause of albuminuria was the languid movement of blood in the renal capillaries, and the indication here was to improve the circulation. Under a mixture of iron, sulphate of magnesium, nux vomica, and digitalis, the dropsy diminished, the pulse became of better volume and not so compressible, and the albumen diminished to a little more than a trace. The patient was allowed to get up too early, and this brought about a temporary increase in the albuminuria. The imperfect development of blood pressure showed the nature of the patient's constitution, and might be made use of in prognosis. It indicated a long illness and the necessity of the use of vascular stimulants.

Dr. Maguire said that Dr. Broadbent, by drawing attention from the renal condition to the circulatory system, had led the way to rational treatment. He had found cases of high tension best relieved by calomel and salines, those of low tension by nux vomica and iron.—*Therapeutic Gazette.*

#### On the Use of Super-saturated Solutions of Boric Acid in the Treatment of Cystitis.

HAVING read that it was possible to make a stronger saturated solution of boric acid than four per cent., M. LAVAUX (*Journal de Méd. de Paris*) obtained one nearly four times as strong by

the following procedure: To one hundred parts of boiling water (distilled) he added fifteen parts of boric acid and one part of calcined magnesia. Allowed to cool and filtered, only a minute portion of the salts were found to be precipitated. This solution he used in three cases of cystitis.

The first case was a patient with tuberculosis in the third stage. He had had a stricture which had been dilated, and marked improvement of the cystitis followed. But at a certain stage the cystitis remained stationary and the urine contained a large quantity of pus. It was at this stage that the super-saturated solution was used. The patient felt severe pains with frequent desire to urinate for two or three hours after, then all symptoms vanished and next day a decided diminution in the quantity of pus was noticed. The ordinary four per cent. solution was then used, with an eight per cent. at intervals of forty-eight hours. The latter was tolerated almost as well as the former. The cystitis yielded completely in five days.

In the second case reported, cystitis in a woman with metritis, the super-saturated solution was only used after the disappearance of the pain and frequent micturitions. A marked decrease in the amount of pus followed. The solution was tolerated much more easily than in the preceding case; the pain was light, and the frequency of micturition only slightly increased.

The third case was one of very severe cystitis, previously treated by cocaine and four per cent. boric acid solution. Here, too, a decided diminution of the purulent secretion was obtained, and the pain was not severe. His conclusions are that the super-saturated solution, in its therapeutic effects, is much superior to the four per cent. solution,

which is too feebly antiseptic. As the stronger solution is somewhat irritating, it is well not to have recourse to it during the acute stage.—*American Practitioner and News.*

#### Washing out the Pelvis of the Kidney and the Ureters through the Bladder.

IN a communication in the *Lancet*, Mr. REGINALD HARRISON refers to the possibility of distending the ureters with fluid, and thus reaching the pelvis of the kidney. In the normal condition of the parts such a process could be brought about only by very gradual means, as the mode of entrance of the ureters into the bladder is such as to render sudden regurgitation of fluids from the latter toward the kidneys well nigh impossible. But in long standing stricture and prostatic obstruction, this valve-like arrangement becomes impaired until the ureters and pelvis of the kidney become little else than subsidiary bladders. The same thing occurs as the result of the passage along the ureters of calculi and suppurative *débris*, as is frequently seen in tubercular disease of the kidneys. It occurred to Mr. Harrison that when such conditions exist fluid might be made to pass from the bladder along the ureters to the pelvis of the kidney. The author then refers to cases in which these theoretical considerations were put to a practical test. In all these cases renal calculi, or fragments of them were successfully dislodged from the ureters by distending the bladder with fluid.—*Medical and Surgical Reporter.*

#### DISEASES OF RESPIRATORY ORGANS.

##### Deep Injections of Creasote in Phthisis.

DR. ROSEBUSCH gives an account in a Polish medical journal (*Przegląd Lekarski*) of the cases of nine phthisical patients whom he treated by injecting

creasote into the tissue of the lung. The results he obtained were excellent. The injections, which were given at intervals of two or three days, caused the cough almost to disappear and the quantity of sputum to diminish. In those cases which were not very far advanced the patients gained flesh, the dyspnœa and sweats ceased, the body weight increased, and frequently spots which had been dull on percussion cleared up. The temperature decreased from five to eight hours after the injections, the fall continuing at first for ten or twelve hours, a permanently normal temperature being subsequently registered. The injections were made into the affected portion of the lung, which was usually, of course, the apex. The instrument employed was an ordinary Pravaz syringe, with a needle from six to eight centimetres in length. About eight minims (half a syringeful) of a three per cent. solution of creasote in almond oil was injected in each of two spots, the piston of the syringe being pressed down slowly. The patient was told not to breathe deeply, and after the injection to lie quite still for a few minutes. When the needle was not inserted deeply enough, some lancinating pain was apt to be produced by the irritation of the pleura. This, however, did not last long. No hemorrhage was ever observed after the injection, though in the case of one patient, who was subject to hæmoptysis, a slight coloring of the sputum was observed for a short time. If the injections were made into a cavity, or into one of the large bronchi, the patients said they could smell creasote when they coughed, and this substance could be detected in the sputum by chemical means. Of course, great care was taken to perform the operations under aseptic conditions, the skin, the needle, and the syringe being

previously carefully washed with an antiseptic. The creasote used was the *creasotum e bitumine fagi*, or beech creasote.—*Lancet*.

#### The Treatment of Chronic Bronchitis of the Aged.

DR. WYSS, of Geneva, writes (*London Med. Record*) as follows: Of the many remedies employed in this complaint the following deserve special notice:

1. Naphthalin,  $C_{10}H_8$ , is the product of distillation of coal-tar, of which it possesses the disagreeable odor. It possesses some of the physiological properties of camphor, and acts as an energetic expectorant and stimulant. It is best prescribed in the form of medicated pastilles, each containing .10 to .50 of a gramme ( $1\frac{1}{2}$  to 8 grains), to be taken three times daily, or as inhalations, being very easily volatilized by the action of steam.

It should be very carefully used on account of its irritant effects on the renal tissue, and the peculiar modifications in the nutrition of the eye from its continued use, which have been described by oculists (Dox, Panaz, Magnus) under the name of naphthalinic cataract and retinitis.

Magnus, moreover, observed in animals which he had submitted to the prolonged action of naphthalin constant emaciation and even arrest of development.

2. Terpene,  $C_{10}H_{16}$ ,  $2H_2O + aq$ . Its use as an expectorant has been strongly advocated by Dr. Lepine, of Lyons. It is given in doses of .20 to 1 gram (3 to 16 grains), and more.

Occasionally, symptoms of gastrointestinal irritation after its longer employment have been noticed. This remedy ought to be taken during or immediately after meals, in form of pills.

R. Terpin. hydrat., 3 grm. ( $2\frac{1}{2}$  scruples); sacch. alb., mucilag. gummi acac.,  $\bar{a}\bar{a}$  q. s. ut f. pil. No. 30. S.—Three pills daily.

3. Terpinol,  $C_{20}H_{16}O$ , represents an oleaginous, colorless liquid of a faint hyacinth scent. It is a perfectly harmless substance, which is principally eliminated by the lungs, liquefying the bronchial secretions. It may be prescribed either in pills or in gelatinous capsules containing .10 of a gram ( $1\frac{1}{2}$  grains), in daily doses of .5 to 1 gram (8 to 16 grains).

4. *Lippia Mexicana* (a verbenacea), the concentrated tincture of which is recommended by Dr. France, who considers it one of the most efficient expectorants and soothing medicines. In all kinds of bronchial irritation, complicated with violent attacks of cough, the tincture of *Lippia Mexicana* has always been of uniform action and produced rapid relief.

5. Menthol,  $C_{10}H_{20}O$ , the camphor of mint, has proved an excellent expectorant. It is generally prescribed in the form of inhalations, which not only facilitate and rapidly diminish the expectoration, but also allay the violent attacks of cough, which so much exhaust the strength of the patients.

For the administration of these inhalations Dr. Wyss has devised an apparatus resembling the Turkish narghilé. Its use is very easy, and does not fatigue the patient. It conveys the aqueous vapor charged with the medicament, and sufficiently cooled by a current of air which passes through the apparatus, to the mucous lining of the bronchi, instead of barely passing the larynx, as is the case with other kinds of inhalers.

#### Liebermeister on the Treatment of Pneumonia.

A FEW months ago we presented our readers with an account of the methods

of treatment in pneumonia followed in the chief American hospitals. The subject is one of such practical every day interest that no apology is necessary in presenting the views of the well known Tübingen professor, more particularly as his treatment in some points contrasts strongly with American and English practice.

In the *Deutsche Medicinische Wochenschrift*, he has been discussing the etiology and symptoms of inflammation of the lungs and pulmonary tuberculosis, and in No. 9 he gives his matured experience in the treatment of the former affection. The possibility of the discovery of a specific he thinks less probable in this than in other infectious diseases, and meanwhile he follows the expectant and symptomatic plan, which is based upon a clear conception of the course and dangers of the disease. The majority of deaths occur from paralysis of the heart, in consequence of the increased labor, or from heart weakness, the result of the fever. We have here our indication for treatment; for the first, stimulation; for the second, antipyresis. Abstraction of heat by external cold is preferred to drugs, which are used only when hydrotherapy fails.

Leibermeister does not regard the fever as an unmixed evil, but inclines to the view that it is reactive and conservative, and expressive of the struggle which is taking place with the microbes of the disease. He employs the bath in preference to other methods, and orders one whenever the temperature reaches 104° F. The water may be at 68° F., in which case the patient remains only ten minutes, or the time may be prolonged if the water be lukewarm and gradually cooled. The baths are given preferably after seven o'clock in the evening, as in this way the spon-

aneous morning remission of fever is increased. During the day, if necessary, cold spongings are employed. Experience has proved to be groundless the fear of chilling and of increasing the inflammation; on the contrary, the patients breathe more deeply, the expectoration is freer, and the entire system is refreshed and stimulated. No recent statistics are offered, but he quotes his Basle records of 150 cases treated in this way, with a mortality of only 10.5 per cent., against an average of 25 per cent. under older methods during a period of thirty years.

Antipyretic drugs, quinine, antipyrine, and antifebrine, are seldom used, and then only to maintain the action of the bath. Digitalis, which for so many years was looked upon as a substitute for blood letting, has its uses in reducing fever and supporting the heart. Alcohol is regarded as the most important remedy against the progressive heart weakness. Blood letting is advised in œdema of the unaffected lung. Cupping is not thought to have any influence in the inflammatory process, but it relieves the pain.

While, then, on general principles, Liebermeister's treatment of this disease corresponds closely with that employed in our hospitals, his strong advocacy of hydrotherapy, and the striking results which he quotes, should challenge the attention of clinicians. That the method is troublesome and expensive to carry out, should not stand in the way of its adoption in our hospitals, and the recent statements of Brand, together with the experience of the Lyons School, in the treatment of typhoid fever, should arouse an active interest in the method which heretofore has scarcely received the consideration it deserves at the hands of American physicians.—*Medical News*.



### Hydrofluoric Acid and Phthisis.

At glass factories the beneficial influence of hydrofluoric acid on tuberculous workmen has long been noted, and many attempts have been made to employ this agent in the regular treatment of phthisis. M. GARCIN has cured thirty-five and relieved thirty cases out of a hundred by means of this acid; ten of the hundred died, and in fourteen cases there was no improvement. The patients sit for one hour a day in an atmosphere saturated with hydrofluoric acid. This saturation is effected by passing a current of air by means of a pump through a tank of gutta-percha containing nine and one-half ounces of distilled water, and three-fourth ounces of hydrofluoric acid.—*Lancet*.

## DIGESTIVE TRACT.

### Fæcal Accumulation.

DR. J. WESSELOWSKI reports the case (*Kansas City Med. Index*) of a woman forty years old:

The patient had a peculiarly ashy countenance, and a temperature of  $103^{\circ}$ ; the tongue was coated and the breath foul. She said her bowels moved every day, but not enough, although she had taken calomel, senna, jalap and salt. On examining her abdomen, he found it largely distended with gas and a very prominent lump in the right side of the body. After manipulating carefully, as even the slightest touch would produce indescribable pain, he made out a large accumulation of fecal matter in the ascending colon. He injected into the bowel at first two ounces of glycerine every hour, and gave an injection of soap and water every hour. After six hours of hard work, he noticed that the lump, by easy manipulation, became softer and friable. The first good move-

ment the patient had was in about seven hours after his arrival. As soon as she had a movement, which consisted of hard lumps containing graham flour and raspberry seeds, which she had eaten about two weeks before, she became easier. The gas passed off, and the temperature fell to  $99^{\circ}$ . The next day he learned that she had about six more movements during the night and morning. He examined her again at that time and found that the whole lump had disappeared. In a few days she was well. He advises never to give a purgative while the fecal impaction exists.—*Medical and Surgical Reporter*.

### Etiology of Floating Liver.

In the *Berliner Klin. Wochens.*, H. ROSENKRANZ reports a case of a woman, forty-eight years old, who was at the climacteric and had had eight normal births. In the middle of February, 1887, she was suddenly taken sick with violent vomiting and pain in the pit of the stomach and around the liver. Soon afterwards ascites, œdema of the limbs, genitalia, and skin of the belly occurred. The urine was free from albumin, the heart normal, and there was no jaundice. Through the administration of diuretics and hydragogue cathartics, the ascites and œdema soon disappeared. The general feeling of the patient was good. In May the abdominal cavity was found by repeated examination to be filled with a large tumor, which from its form and mobility was recognized without difficulty as the liver. The gall bladder and all the lobes of the liver could be plainly felt on palpation. The normal area of liver dullness had disappeared. It was now easy, says Rosenkranz, to explain the ascites and œdema. The violent vomiting had effected the separation of the liver from the diaphragm, and hence the violent pain at that spot.

CONSTITUTIONAL DISEASES.

Some Points in the Management of Typhoid Fever.

DR. I. N. LOVE, in an article read recently before the American Medical Association, and published in *Weekly Record*, says :

Since the introduction of antipyrin the dangers of high temperature are much less than formerly, as we certainly can control that feature ; however, I favor the very careful administration of the drug, until full opportunity is given for the ascertainment of the degree of susceptibility. There have been recorded already a number of unfavorable results ; even death has occurred owing probably to some peculiar idiosyncrasy. I prefer small doses (5 to 10 grains for adults) at short intervals, keeping up the effect continuously, rather than large doses which produce sudden and excessive falling of temperature. I think a sudden reduction no matter how attained, is not so likely to be maintained ; they are depressing and endanger heart failure. While antipyrin is of great value as a febrifuge and tranquilizer of the nervous system and at the same time diaphoretic, I feel that in the cooling bath we have an agent equally or even more valuable. I do not mean the sudden immersion in cold water ; that is uncalled for, undesirable and brutal. The temperature of the water at first should be about the same as that of the patient, and may be gradually reduced to 85° or 80°. The bath may be prolonged five or ten minutes. I doubt not you have all seen, as I have, patients wildly delirious, go calmly to sleep during the progress of the bathing. The advantages of the bath I take it are :

1. The reduction of temperature is accomplished gradually and comfortably to the patient in accordance with

nature's plan of putting out fire with water.

2. The water acts primarily as a soother of the peripheral nerves, and secondarily calms the disturbed nerve centres.

3. It stimulates the secretory glands, allays thirst by being directly absorbed into the heated and dry tissues ; encourages diaphoresis as well as diuresis.

4. It influences favorably the respiratory organs by energizing inspiration ; and thus aids in the securing of expectoration, and as a result bronchial complications are less frequent.

5. The hygienic effect upon the skin is of great value, removing as it does the foul smelling products of the sweat and sebaceous glands, aiding in the procurement of strength and elasticity in the cutaneous and adjacent tissues, conditions antagonistic to bed sores.

What has been said above need not be interpreted as an objection to tonic doses of quinine during the period of convalescence, but as against the administration of quinine to an unadulterated case of typhoid fever. In the earlier, middle or later stages of the disease, there may come a time when the necessity of the situation demands the removal of the patient from one section of the country to another. I desire to place myself on record as being strongly of the opinion, that the danger of removing a person seriously sick, has been greatly overrated ; that with due care and guarding against the chilling of the surfaces and interruption of the proper amount of sleep, typhoid fever and other dangerous cases may be safely transported hundreds of miles. I have a record of four cases successfully and advantageously removed from one hundred to one thousand miles on sleeping cars, which justify this conclusion.

As the administration of the calomel

purge in the beginning is satisfactory, so is the renewal of one-eighth grain doses every other day to the number of half a dozen, is an advantage in the direction of keeping the bowels open, as well as serving as an intestinal antiseptic. If an additional aid is required to evacuate the bowels, an enema of a teaspoonful of glycerine will be efficient. *En passant*, I desire to emphasize the value of one-dram injections of warm glycerine (as suggested by Anacker) into the bowel as a ready means of securing a prompt evacuation.

Permit me to emphasize the most salient points I desire to make, by summarizing as follows :

1. Typhoid fever varies in intensity, severity and length of attack, as do other infectious diseases, and while it has not yet been established that any of this class can be aborted, yet typhoid with all the others, may be mitigated and abbreviated, and unfortunate complications and sequelæ often prevented.

2. To the securement of this end I think that which is of paramount importance, is management rather than medication, though there are many dangers that can only be tided over by the prompt and proper exhibition of drugs.

3. The administration of remedies that are antiseptic and stimulate the excretory organs is important, and for this purpose small doses (1-50 gr.) of bichloride, or the mild chloride ( $\frac{1}{8}$  to  $\frac{1}{4}$  gr.) as often as is necessary to produce the desired effect is of value.

Nutrition, by the administration of food in a form for prompt assimilation is a necessity and to this end the diet should be limited to peptonized milk, beef peptones (Rose's) bovine (Bush), etc., bearing in mind that the stereotyped home-made beef tea is of no more value as a food than a weak toddy, being a mild stimulant and nothing more.

5. Freedom from pain, tranquility, and perfect rest should be insisted upon, and remembering that this disease of all others has a wrecking effect upon the nervous system (it having been called by some German writers *feber nervose*, or nervous fever), we should see to it that our patient obtains not less than twelve to sixteen hours sleep out of the twenty-four, and the remainder of the time be saved from the meddling, misdirected kindness of over zealous friends.

6. For the obtaining of sleep and the relief of nervousness, the administration of antipyrin, chloral, paraldehyde, urethan, and the bromides, is preferable to opiates, though occasionally the latter are demanded.

7. When the conditions surrounding a patient are unfavorable a change is desirable, even to a distant point, the removal under proper precautions against chilling and unrest, may be permitted or even preferred, the danger of the same not being as great as it is generally considered to be.

8. As a rule, a patient with typhoid fever or any other wasting disease, should not be permitted to have bed sores, which are an expression of starved tissue and neglected skin, and are preventable, the means for their prevention being proper nutrition and bathing.

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#### Salicylate of Magnesium in Typhoid Fever.

It will be remembered that a few years ago Desplats and Vulpian strongly recommended salicylate of bismuth in abdominal typhus. They claimed that it not only acted as an antipyretic in this disease, but also as an antiseptic and an antidiarrhœic.

According to the views of Huchard the drug loses its value on account of its antidiarrhœal properties, for, he says, copious and free movements of the bowels carry off infectious substances

better than anything else. He therefore recommends that salicylate of magnesium be used in its place, and cites a long series of cases in which the drug rendered most valuable service. Its action was much less styptic than that of salicylic bismuth.

The manner of preparing the salt is as follows :

The salicylic acid is first dissolved in water, and while the solution is heated to boiling point, carbonate of magnesium is added until the solution becomes saturated, and finally the salt crystallizes. These crystals form long, colorless needles, which are easily soluble in both water and alcohol, and have a rather bitter taste.

The action of the drug upon the typhoid patient is next observed in the disappearance of weakness, in the disappearance of the foul smell of the mouth, a decrease in the swelling of the abdomen, and a lessening of the decomposed odor of the fæces.

The decrease of mortality in cases of ileotyphus under this treatment is so great, says Huchard, "that the most enthusiastic followers of Brand's water treatment have just cause to be envious."

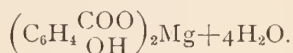
In cases where the drug had been used from the first, complications were but rarely observed. It also has the additional advantage over other drugs in the fact that it may be given in very large doses without producing any disagreeable accompanying symptoms whatever.

P. S. Laut, of the Soc. de Méd. Pratique, said that he had used the drug as prescribed by Huchard for one year, and had always had the best possible results from such treatment.

The drug acted both as an antipyretic and antiseptic. The desired result was obtained by doses of 50 to 100 grains daily. In cases where the diarrhea is

copious it is not contraindicated, as even in doses of 100 to 150 grains its laxative action need not be taken into consideration.

The formula of the salt is as follows :



It contains 74.6 per cent. of salicylic acid, and the daily doses, as prescribed by Huchard, contain only one-third the quantity of salicylic acid given by Vulpian, who, in the Hotel Dieu, prescribed no less than 100 to 150 grains of acid "tale quale," to be given daily in wafers.

Salicylate of magnesium, as prepared by Von Heyden, is acid in reaction, and, as it is hygroscopic, is put up in glass bottles. To facilitate its administration the crystals are finely powdered. —*Pharm. Post.*—*Therapeutic Gazette.*

#### Manaca in Muscular Rheumatism.

DR. THOMAS P. GARY thus writes in the *Medical Age* :

I have treated quite a number of cases of muscular rheumatism, which is getting to be very common in this country, and in no instance have I had any reason to complain of the results obtained from the use of manaca.

It will only be necessary to give a history of one case, for its effects have been uniform throughout. The patient had been a sufferer for quite a number of years, and had tested the talents of distinguished physicians without receiving any material benefit. He had suffered much from malaria for four years, and physicians differed as to whether he had any syphilitic complication. If there was, it most probably was the result of vaccination during the war, as he presented no evidence of having contracted it in the usual way.

He was out shooting one day, during



a small rainfall, and although he did not get very wet, a pain of a neuralgic character began in the region of his right nipple, and he became feverish and quite nervous. Subsequently he was under treatment by physicians, but was often annoyed by neuralgic pains in various portions of the body, but more particularly in the muscles of the chest and back, occasionally in legs and arms. Any extra exertion produced them, though subacute. He was subjected to constitutional treatment of iodide of potassium and mercury, without any material benefit, for several years, and finally came under my observation. I prescribed fluid extract of manaca in 35 and 40 drop doses three times a day. This he continued for two months, and the improvement was gradual and permanent, and to-day he expresses great confidence in being entirely cured. The duration of this "disease," the failure on the part of other physicians to relieve with standard medicines his condition, and the great improvement under the use of manaca, certainly should encourage us to give this remedy further trial in these cases.—*Medical and Surgical Reporter*.

#### Treatment of Tympanites by Puncture.

At a meeting of the Hunterian Society, Dr. R. J. RYLE read a paper on a case of tympanites treated by puncture through the abdominal wall. (*Lancet*.) The patient, a man aged 46, came under treatment in October, 1887, with vomiting, paroxysmal pain, and constipation of about ten days' duration. Examination of the abdomen showed considerable fulness, but no tumor was felt, and examination per rectum revealed nothing. Enemata and O'Beirne's tube gave no information. Colotomy was proposed, but declined by the patient ;

therefore puncture of the intestine to relieve distension was resorted to as the only treatment which promised relief. Eight punctures were made, with considerable relief to the distension, but with the result of setting up an attack of violent peristaltic contraction about half an hour afterwards. Three days later it was necessary to puncture again in three places, and two precautions were used to prevent peristalsis,—viz: (1) Hypodermic injection of morpho-atropine, and (2) use of a larger aspirating needle. A very large quantity of gas was evacuated. No violent peristalsis, followed. Forty-eight hours later the bowels opened. After a fortnight symptoms of obstruction returned, and puncture again became necessary, the same precautions being taken as on the former occasion, and in the course of the following three weeks puncturing was four times repeated. Great temporary relief was gained, but the patient gradually sank and died. A post-mortem examination showed an annular stricture of the first part of the rectum, but no evidence of peritonitis or extravasation of fæces, and with the exception of certain small black spots no trace of the puncture was visible in the wall of the bowel. The points of interest in the diagnosis of this case of chronic obstruction were then discussed; and, secondly, those of the treatment by puncture. As to the latter, the relief afforded by this procedure was of value, for three reasons: 1. As checking the respiratory and circulatory difficulties consequent on extreme distension. 2. As diminishing the direct risks of distension—viz: rupture and peritonitis. 3. As favoring the re-establishment of the normal intestinal action. The chief mode, however, in which puncture tended to produce evacuation of the bowel is by exciting brisk peristalsis, and this is a result

which, as in the present instance, may require to be guarded against. As to the dangers of intestinal puncture, it is impossible to state that there are none; thinning or ulceration of some part of the bowel may convert a puncture into a rent. The same might happen from movement of the empaled bowel, or liquid fæces might be conveyed from the needle to the peritoneum. But a much less hypothetical danger seemed to be the rupture of the diseased bowel by the violent peristalsis set up by puncturing, or if the puncturing is very free. The reality of this risk is shown (possibly) by the history of a case of Dr. Bristowe's, recorded in the *Pathological Society Transactions* for 1872; and still more clearly by a case recorded in 1878 in the *British Medical Journal*, by Dr. Coupland and Mr. Morris, in which rupture was due to peristalsis caused by puncture. If this view of the danger be correct, the proceeding comes to resemble the administration of ergot during labor, and the cases most suitable for the treatment would seem to be those which are known to be characterized by healthy bowel and an absence of insuperable obstruction, such as sometimes occurs in obstetric practice or after abdominal operations. Perhaps, too, as has been suggested by Dr. Galabin, this treatment might be of use in commencing peritonitis. The beneficial effects of simple relief of tension in checking the progress of inflammation are shown in periostitis and cellulitis, and probably a few needle punctures would be less dangerous than continued distension to the peritoneal coat. From similar considerations he suggested its employment in enteric fever, more especially if, as was probable, excessive peristalsis can be prevented by opium. The specimen was shown at the meeting.—*Therapeutic Gazette*.

#### Treatment of Typhlitis.

ACCORDING to the Paris correspondent of the *British Medical Journal*, M. BOUCHARD recommends the following treatment for typhlitis: Soothe pain by a morphine injection, if very sharp at first; if not, a thick layer of Neapolitan ointment with belladonna, covered by a large, very hot poultice. Aseptic rectal injections twice a day, with at least one litre of water, to which are added five grams of borax of soda, and two or three teaspoonfuls of tincture of benzoine, mixed with camphorated alcohol. The injections must be given very slowly. Absolute rest is indispensable. No purgatives, or, if any, only those of the mildest kind, such as magnesia in water, etc. Only the lightest diet, which will leave no deposit for intestinal fermentation, should be allowed. Milk and alkaline drinks may be given in small quantities at a time; later on, milk, thickened with yolks of eggs. If at the end of a fortnight some thickening can still be felt round the cæcum, apply a small blister.—*Therap. Gazette*.

#### Milk Jelly and Milk Powder.

THE *American Druggist* gives the following directions for preparing these milk foods:

As a variation in milk diet, the following is recommended by Professor Liebreich:

Heat one quart of milk with one pound of sugar, and when the sugar is dissolved continue the heat, at a boiling temperature, for about ten minutes. Now cool it well, and then add, slowly stirring, a solution of 1 ounce of gelatine in a cupful of water. Next add the juice of three or four lemons and three wine-glassfuls of wine, brandy, or other liquor. Set the glasses containing the mixture in a cold place, so that the contents may gelatinize. It is necessary to

have the milk quite cold before the other ingredients are added, as it would otherwise curdle.

Dried milk, in the form of powder, may be prepared by evaporating skimmed milk in a suitable apparatus, preferably in vacuo and under continued stirring, at a temperature of 60° to 70° C. (140° to 158° F.) to a syrupy consistence, then mixing it with 30 to 50 per cent of its weight of finely powdered sugar, and continuing the heat, with constant stirring, between 30° and 55° C. (86° and 131° F.) until the product has assumed a dry, granular condition.

#### Physiological Actions of *Aconitum Fischeri*.

IN the *Weekly Medical Review*, Dr. ALFRED E. BRADLEY publishes an elaborate paper as to the physiological actions of *Aconitum Fischeri*, with following conclusions :

1. That it is a rapidly acting poison.
2. It kills by failure of respiration.
3. In sufficient doses it is a depressing systemic emetic ; it has the effect of producing the aconite tingling.
4. It has little or no effect on the motor nerves ; if any action at all, only slight impairment of conductivity.
5. By systemic action it has no effect on the energy, contractility, or irritability of muscular tissue.
6. That in its systemic action it is a paralyzer of the sensory nerves.
7. It first paralyzes the sensory nerve ends, next the nerve trunk, and finally the spinal sensory ganglia.
8. Its action on the sensory nerves precedes its action on the motor.
9. When brought directly in contact with the sensory nerve ends it destroys or paralyzes for a time at least the functions of those parts.
10. Its action on the posterior extremities always precedes its action on the anterior.

11. That it has no effect on Setschenow's inhibitory centre.

12. That it lessens, finally abolishes, spinal reflex excitability by its action on the sensory apparatus.

13. The motor portions of the cord are but little or not at all concerned in the abolition of reflex excitability.

14. That it is a heart poison.

15. After a preliminary slowing the action of the heart is rendered irregular, rapid, and feeble in both warm and cold blooded animals.

16. The slowing is probably due to stimulation of the cardiac inhibitory ganglion ; the final action is due to paralysis or removal of inhibition, probably caused by paralysis of the above mentioned ganglion.

As the cardiac muscular fibres will not respond to faradic stimulation a possible action of these tissues may be a factor in the effects produced on the heart.

17. The heart finally stops in diastole, due to over stimulation and failure of its motor ganglia.

18. That it causes a fall in blood pressure preceded by a very slight rise.

19. This fall is secondary, and due to its action on the heart.

20. The slight rise is due to the momentary, preliminary stimulation of the heart.

21. That it has no effect on the vasomotor centre or system.

22. That its action on the respiratory centre causes death by failure of respiration.

23. That it has no effect on the organs of reproduction, and is not an abortifacient.

24. That, in its systemic action, it always causes dilatation of the pupil.

25. Locally, it has no effect on the pupil.

26. That in many respects it has actions identical with *aconitum napellus*.

**The Therapeutical Value of Bismuth Salicylate.**

DR. HALE (*Polyclinic*) says:

In an experience extending over two years, with its use in treatment of inflammatory affections of the gastrointestinal tract, seldom has it failed to accomplish the desired result and permanently cure the disease. In severe cases of diarrhea occurring in phthisical patients I have effected diminution in the number of stools by half-dram doses of the drug at intervals of two hours, reducing the amount of the dose on the amelioration of the symptoms. In cholera morbus, after the cause has been removed, this agent will reduce the existing inflammation and induce a cessation of the morbid action.

In dysentery, acute in character and of the sporadic variety, it has proved efficacious when full medicinal doses have been administered, allaying the disorder with great rapidity.

The diarrhea accompanying enteric fever, especially in children, I have been able to control by its use, when other well known remedies for this disorder had failed. If impossible to administer by the mouth, an enema may be employed, but in that case, the amount should be double that given by the mouth; and it should always have a small amount of opium administered with it.

In dyspepsia, with acid eructations and pyrosis, with a feeling of heaviness at the stomach after the ingestion of food, bismuth salicylate, in combination with simple bitters, soon tones up the organ and relieves the disorders. Recently, Dr. James Ware, of Lake Charles, La., communicated to me the following cases in which he had found the preparation useful:

1st. Female, æt. forty-five, dysentery. At the end of five days of treatment

with opium and so on, I gave: R̄.—Bismuth salicyl., gr. c.; bismuthi subnit., gr. c. M. Ft. pulv. No. vj. div.

Gave one powder every three hours. The woman was entirely relieved in twelve hours.

2nd. Female, æt. twenty-three, dysentery. Gave salicylate as above, also by enema, thus: R̄.—Bismuthi salicyl., gr. cc.; glycerinæ, f 3 j; aquæ, f 3 vj. M. Sig.—f 3 i, in three ounces of tepid water, after each stool.

Woman was well in forty-eight hours.

3rd. Child, æt. three; never fully recovered from an attack of cholera infantum last summer. Relieved by salicylate in eight grain doses.

4th. Male, æt. twenty-five: periodical fermentation of contents of bowels every ten or twelve days for a year. Relieved now at the beginning of every attack, by fifteen grains each of the bismuth salicylate and subnitrate.

5th. Female, æt. twenty; pruritus vulvæ. Suffered terribly for several days. Used corrosive sublimate, carbolic acid, and other remedies with no benefit; then employed: R̄.—Bismuthi salicyl., gr. c.; aquæ, f 3 iv.

As a vaginal injection; relief instantly.

6th. Female, æt. fifty-six. Fermentation of contents of stomach and bowels every ten, twenty or thirty days for twenty years, accompanied with violent pain and frequent discharges of acid mucus. Relief generally came in from thirty to seventy-two hours. In the midst of an attack I gave ten grains each of salicylate and subnitrate, with immediate relief. She has taken this amount night and morning for thirty days, with no return of the disease.

The preparation of this drug I have used is a pure white, very flocculent and light material. In beginning the treatment of any inflammatory affection of



the alimentary canal, full and decided doses should be administered, and subsequently, when decrease in the severity of the symptoms take place, the amount may be lessened. In severe cases occurring in children, I never commence treatment with a dose less than five to eight grains.

The formula I prefer in cholera infantum and many other diarrheal disorders in children, is the following:  $\mathcal{R}$ .—Bismuthi salicyl.,  $\mathfrak{z}$  ij.; tr. capsici, gtt. xij.; spts. ammon. aromat., f  $\mathfrak{z}$  iss.; pulv. acaciæ,  $\mathfrak{z}$  ij.; aq. cinnamoni, q. s. ad., f  $\mathfrak{z}$  ij. M. Sig.—Teaspoonful every two hours, for a child from three months to one year of age.

In the adult I prefer to use the preparation in powder, or combined with some other astringents, as tannic acid, acetate of lead, etc. With the bismuth salicylate it is possible in many instances to entirely dispense with an opiate, and this I always endeavor to do if possible.

The beneficial action of this drug is undoubtedly due to the antiseptic power of the salicylic acid as much as the astringent properties of the bismuth. In many cases of vomiting it will control it if given in five grain doses, also in pregnant women the vomiting in many instances may soon yield to the action of this preparation, and its return to any great extent will be prevented by its continuance in small and frequently repeated doses.

#### The Use of Calomel in the Prevention of Pitting in Small-Pox.

In order to prevent the forming of pustules, or the disfiguring marks on the face in small-pox, many methods have been recommended, but none can boast of sure and successful results.

Among the remedies which have gained great reputation may be mentioned the application of indifferent fats, collodium, tincture of iodine, a solution

of carbolic acid or of corrosive sublimate, also cutting of the pustules and cauterizing them by nitrate of silver, and, finally, various forms of masks on the face, or continual cold compresses. Although the latter would seem to give the best results, it cannot be always employed, either because not everybody can support cold compresses, or because this application is troublesome to make, as it requires constant attention.

Having frequently had such cases under his care during a recent epidemic of small-pox at Warsaw, Dr. JOSEPH DRZEWIECKI, in a letter to the *New York Medical Record*, states that he has convinced himself that calomel applied as a powder on the face, does not prevent the development of vesicles from the papules; but when vesicles or pustules were developed it caused them almost immediately to dry up, and in this manner prevented the formation of marks. How and why calomel acts in these cases the author does not pretend to explain. However, we may suppose that possibly several agents have a share in producing this result. Perhaps the calomel acts partly as calomel, partly as sublimate, or partly, perhaps, as metallic mercury, since calomel becomes decomposed into these two latter substances under the action of light; and the mercurials then act either by immediately destroying the micro-organisms or by preventing their development.

In his cases he employed calomel alone, in the form of powder, dusting it over the face, or mixed it with starch in the proportion of twenty to thirty per cent. The author supposes that, instead of calomel, the oxide of mercury might also be employed with success. As regards the strewing of calomel into the eyes, sometimes adopted with a therapeutic aim, we need not fear that it will do any injury—*Therapeutic Gaz.*

## DISEASES OF THE NERVOUS SYSTEM.

### Athetosis in a Girl Twenty Months Old.

AT a meeting of the Société Médicale des Hôpitaux, of Paris, M. COMBY stated that he had then under observation a little girl twenty months old, who had been suffering since the eighth month of her life with hemi-athetosis of the right side. This child, though nourished at the breast, had nevertheless received too much solid food. She is now subject to attacks of vomiting and diarrhea; she is slightly rachitic. The father is tuberculous; the mother healthy but she gave birth to a child which died of meningitis when five years old.

The onset of the athetosis was marked by violent convulsions which lasted several days. At present, he says, in the standing position she supports herself principally upon the left limb; she incessantly turns the right foot up and moves the toes. The hand upon the same side is likewise extended and flexed, and moved from side to side, as is characteristic of athetosis. The general sensibility is undisturbed; there is nothing abnormal about the eyes, and no muscular atrophy. M. Comby remarks that athetosis is extremely rare in a children's clinic; in 30,000 consultations given in five years, he has never observed but one.—*Bulletin Médical*.

### The Hot Bath in the Treatment of Sleeplessness.

MR. S. ECCLES, in the *Practitioner*, states that to secure sleep by means of the hot bath, the following precautions have to be attended to:—The bath-room must be heated to about 70° F., then the patient must be stripped in the bath-room, the head and face first being rapidly doused with water at 100° F. By this means the body is cooled, whilst a rush of blood is sent to the head. Then

the whole body, excluding the head and face, is immersed in the bath at 98° F. rapidly raised to 105° or 110° F. In about eight to fifteen minutes the patient feels a sensation of pleasant languor, when he must be wrapped in warm blankets, and proceed to the bedroom with as little personal effort as possible. By the time the bedroom is reached the moisture on the surface of the body will have been absorbed; the patient must then put on his night-clothes and get into bed, lying with the head raised, hot bottles to the feet and well covered with bed-clothes. No conversation or moving about the room should be allowed, and all light must be excluded. In a few minutes the patient will be found in a quiet, refreshing sleep. The theory of the method is based on the sudden exposure of the body contracting the arterioles of the skin, causing thereby a corresponding dilatation of the vessels of internal organs, which in the case of the brain is further induced by the application of hot sponging. The immersion of the whole body next causes a dilatation of the vessels of the surface, except the head and face, with contraction of the vessels of the brain and gradual slowing of the heart's action, thus placing the brain in the most favorable condition for complete functional rest. There are certain conditions, however, in which this method is contra-indicated. Persons suffering from anæmia or emaciation, or from aortic valvular disease, or in whom signs of atheroma are recognized, should not be subjected to such rapid variations of local arterial tension as this process entails. In such cases massage may give good results.—*Glasgow Med. Journal*.

### Antero-lateral Sclerosis.

FOR a case of antero-lateral sclerosis, the following was ordered by Professor

DA COSTA: A prescription containing iodide of potassium, thirty grains, three times a day. Counter-irritation and dry cups to spine. Sitz bath. Also,  $\frac{1}{100}$  gr. hydrobromate of hyoscin at night.—*Coll. and Clin. Record.*

#### Neuralgia.

DR. CLINE gives this formula in *Medical World*:

R. Tinct. aconiti, tinct. gelsem. aquæ menthæ piper, āā ʒiij; hydrarg. chlor. cor. gr. v.; potass. brom., ʒj. M. S.—Six drops three times a day.

#### New and Reliable Remedy for Coccygodynia and Pruritus Ani.

DR. R. STANSBURY SUTTON, in the *Medical and Surgical Reporter*:

I have, for reasons I do not now care to speak of, regarded this disease as purely neurotic. I have treated it with the Faradic current. One treatment produces immediate relief; a few treatments cure it. Three cells are sufficient; time, five minutes; the frequency of application depends upon the return of pain. The anode is placed over the sacrum and the cathode in the vagina or rectum, or over the sphincter ani muscle. This treatment, so far as I know, is original with myself.

Much has been written of late concerning the treatment of pruritus ani. I desire to add my own suggestion. The best remedy I have ever found is the galvanic current; the quantity required need not exceed five milliampères; the time of application five minutes. The relief is immediate, and the application once or twice daily is quickly curative. The anode is placed over the perineum or base of the scrotum and the cathode against the sphincter ani, or, if required, within its grasp, bringing all the pruritic surfaces between the poles. I claim to be the first, so far as I know, to sug-

gest this remedy for the treatment of this disease. I will ere long have more to say of it.

#### Epilepsy Treated by Hot Iron.

M. FERE presents a patient in whom, as well as in seven others, he had caused a marked diminution of spasms by the repeated application of the hot iron. These patients all present a certain degree of hemiplegia, due to a cerebral affection which had preceded the convulsive manifestations.

#### The Comparative Weight of the Two Hemispheres in the Insane.

THE following are the conclusions arrived at by Marselli (*L'Encéphale*) with regard to this interesting subject: 1. In contradistinction to the assertion of Luys, the right cerebral hemisphere averages in weight more than the left, in the sane as well as in those of unsound mind. 2. This discrepancy in weight is maintained in both sexes at every period of life. 3. Insanity tends to augment this difference in weight of the two hemispheres. 4. The greatest differences in weight are found in those psychopathies of a paralytic nature which are followed in the course of regressive changes by so-called senile psychoses. Under these circumstances, however, the preponderance of one hemisphere over the other is to be ascribed to morbid atrophic processes or to cerebral involution. 5. If the disturbing influence of atrophic processes is excepted, the greatest cerebral asymmetry is encountered in persons affected by epilepsy. Under these circumstances it is apparently attributable to a deviation in morphological development of the nervous centres. 6. Finally, there is not the slightest correspondence between the difference in weight of the two cerebral hemispheres

of the insane and the asymmetry of the enveloping cranium.—*N. Y. Med. Jour.*

### DIGESTIVE TRACT.

#### The Treatment of Rectal Pain by Conium.

DR. WHITLA (*Practitioner*) publishes a paper which calls attention to the value of hemlock as a local anæsthetic in painful affections of the rectum and anus.

In pruritus ani, especially when associated with or caused by hemorrhoids, or fissures about the anus or in the lower part of the rectum, the physician or surgeon often finds much difficulty in giving relief. The pain and annoyance caused by a minute fissure is very often uninfluenced by cocaine, even when used as a strong solution, and if relief should follow it is seldom complete, and is always of such very short duration that the patient will generally discontinue its use, preferring the misery of his ailment to the exacerbation of suffering caused by the application of the remedy.

Morphine, carbolic acid, creasote, belladonna, and the usual array of local sedatives, have been found in the hands of most observers to give very uncertain results in painful conditions of this region of the body. It will be, perhaps, the experience of most that they have more frequently aggravated than relieved. Their application, when used to allay the pain of an inflamed pile, has sometimes added a more distressing symptom,—namely, itching.

It is a long time since conium has been recommended for use as a local anæsthetic, but this belief in the case of the extract will be but rarely substantiated. Dr. Whitla believes, however, that the extract of the British Pharmacopœia is a most unreliable and generally almost inert preparation, and has

experimented with an ointment prepared in the following manner :

Two ounces of the pharmacopœial juice are placed in a small evaporating dish, and permitted to evaporate slowly at a heat under 150° F. till the bulk is reduced to about one and a half or two drams. This can be done by placing the dish on the top of an ordinary domestic hot water cistern for twenty-four or forty-eight hours. The syrupy liquid is then carefully triturated with as much lanolin as will make up the weight to one ounce ; the result is a perfectly smooth adhesive ointment of a light brown or dark fawn color and stable.

Happening to have several rectal cases, in which severe pain and torturing pruritus were prominent features, the ointment was carefully applied. One was a case of multiple small fissures, accompanied with intolerable itching ; another was associated with severe tenesmus and excoriations from the pus, flowing from an iliac abscess bursting through the levator ani muscle and penetrating the rectal walls ; another was complicated by a bleeding villous growth. These, with two cases of hemorrhoids, one of which had an ulcerated surface, were markedly and speedily relieved by the conium ointment after nearly every known remedy had failed.

In a considerable number of cases during the last year the same highly gratifying success was achieved by this remedy, while he cannot recollect a single instance where the ointment caused inconvenience. It should be freely smeared inside the sphincter, and, owing to its adhesive quality, can be carried a considerable distance up the rectum by the introduction of the forefinger of the patient.

Dr. Whitla never noticed after its



use the serious drawback which follows the prolonged application of every other greasy application to this region—namely, a tender, sodden, or raw state of the skin about the margin of the anus.

The ointment appears to paralyze the endings of the motor nerves distributed to the fine muscular layer under the surface of the mucous membrane; the reflex twitchings of this layer keep up the perpetual pain and uneasiness in diseases of the rectum and anus associated with abrasions, ulcerations, or fissures.

Dr. Whitla has likewise obtained relief from its use in vaginismus and some affections of the male urethra, and finds it a good lubricant for the sound or catheter. Of the ointment prepared according to the above formula, ten or twelve grains of the persulphate of iron may be added. This decoction of conium with iron should always have trial in cases of fissure before resorting to the knife or cautery—*Thera. Gazette*.

#### **Influence of the Bitters upon the Function of the Stomach.**

N. REICHMANN publishes a communication in the *Zeitschrift für klin. Medicin*, entitled an experimental investigation concerning the influence of the bitters on the function of the stomach in health and disease. His investigations were limited to the human stomach. In his tests he employed centaury, trifolium, gentian, quassia, and wormwood. Cold infusions (12 parts to 200) of these bitters were given without food, and before or during a test-meal of distilled water and albumen. The result showed that after the administration of these bitters, which all act alike, the secreting power of the stomach is less than after the taking of distilled water. But when the drug is

eliminated from the stomach, the secretory apparatus is excited to increased activity. If food and the infusion were swallowed at the same time, both the secretory and the motor function of the stomach were impaired.

Of course, the practical lesson to be learned from this is, that bitters should be used only in cases in which the gastric juice is diminished, and that they must be taken about half an hour before food.—*Deutsche Med. Woch.—Medical and Surgical Reporter*.

#### **Flatulent Dyspepsia.**

IN flatulent dyspepsia, the following formula is suggested (*Journal de Médecine*):

R. Bismuth. subnitrat., magnesiae, aa gr. xxx; belladonnæ pulv., zingiberis pulv.; aa gr. iij. M. Divid. in chartas x. Sig.—One twice daily, in peppermint water.

#### **Saline Cathartics.**

As a general rule, saline cathartics are easily borne by the stomach, especially Epsom salt. (Bartholow.)—*Coll. and Clin. Record*.

### **DISEASES OF RESPIRATORY ORGANS.**

#### **The Use of Chromic Acid in the Nasal Cavity.**

DR. F. H. BOSWORTH, in a letter to the *New York Medical Journal*, in reply to inquiries concerning his particular method employed in the application of the chromic acid, and special stress was laid in my article on the fact the object of caustics was not to destroy tissue, but rather to control inflammatory action.

The membrane, first having been thoroughly contracted by the use of cocaine, the superficial layer is coagulated and thus rendered sufficiently

dense and inelastic to prevent a return of the blood. With careful use of the caustic, this exsanguinated condition may be maintained for several days.

The method more in detail is as follows: A 20 per cent. solution of cocaine is first sprayed into the nasal cavity. This solution produces, as a rule, complete expulsion of blood at the end of two minutes, a complete anæsthesia at the end of three. This, however, does not occur in all cases, and the tractile sensibility should be tested with a probe and at the same time the condition of the membrane by ocular inspection. If complete exsanguination and anæsthesia do not occur in the time specified, a pledget of cotton, wrapped on a small probe and saturated with the cocaine solution should be repeatedly swept over the membrane until those conditions have set in. The membrane should be wiped perfectly dry with a pledget of fresh cotton on the probe before the application of caustic. Then a small and slender probe, as shown in the wood-



cut, but greatly reduced, is dipped into a little thin mucilage, and subsequently three or four fine acicular crystals are taken up upon it. The mucilage is used in order that the chromic acid may adhere to the probe. The probe holding the crystals should then be held over the flame of a coal oil lamp or other suitable heating apparatus until the crystals of chromic acid have fused into a small round tear, care being exercised that they be not burned, which on drying presents a minute red bead, as it were of chromic acid, firmly attached to the end of the probe. In this manner the acid can be carried easily to the part which it is desired to

cauterize and without danger of burning adjacent tissues.

In making the application, there should always be kept in mind the fact that we do not wish to destroy but simply to create a small inelastic button, as it were, at the summit of the projecting portion of the hypertrophied tissue. We, therefore, as a rule, simply create a small round eschar, perhaps of the size of a split pea.

The speculum being left in the cauterized nostril, the opposite side should now be closed with the finger and the patient directed to take a number of quick inhalations through the nostril, which has been treated until the caustic has exhausted itself and entirely converted into insoluble oxide of chromium.

In most cases the patient can now be dismissed without further procedure. In many cases, however, it is well to thoroughly wash the part with an alkaline solution and subsequently to throw in a spray of fluid cosmoline.

#### Treatment of Laryngitis.

THE London correspondent of the *Canada Lancet*, says that Dr. WOLFENDEN, of the London Throat Hospital, in cases of sub-acute laryngitis prescribes the following:  $\mathcal{R}$ . Tinct. benzoini co.,  $f\ \frac{3}{4}$  iv. Sig.—A teaspoonful in a pint of hot water for each inhalation, night and morning.

The patient is cautioned not to go out of doors for at least half an hour after using the inhalation. Trochees of *krameria* are also ordered, each lozenge containing one or two grains of the extract of *rhatany*.

In some cases the following vapor is preferred:  $\mathcal{R}$ . Olei eucalypti,  $f\ \frac{3}{4}$  ij; magnese, carb. levis, grs. lx; aquæ ad,  $f\ \frac{3}{4}$  iij. To be used in the same manner as the above.

In chronic laryngitis, in addition to any constitutional treatment which may be required, he usually prescribes the following vapor:  $\mathcal{R}$ . Olei pini sylvestris  $\mathfrak{f}\ \mathfrak{z}\ \text{ij}$ ; magnes, carb. levis, grs.  $\text{lx}$ ; aquæ ad,  $\mathfrak{f}\ \mathfrak{z}\ \text{ij}$ . Sig.—A teaspoonful in a pint of hot water for each inhalation, night and morning.

He also gives trochees of krameria. In tuberculous laryngitis he prescribes a vapor of benzoin and chloroform, as follows:  $\mathcal{R}$ . Tinct. benzoin co.,  $\mathfrak{f}\ \mathfrak{z}\ \text{j}$ ; chloroformi,  $\mathfrak{M}\text{iv}$ . Put in a pint of hot water for each inhalation.

As a local application he uses solutions of lactic acid, varying in strength from twenty per cent. to sixty per cent., applied by means of a brush twice a week. In granular pharyngitis he finds the galvano-cautery the most satisfactory treatment.—*Medical and Surgical Reporter*.

#### Formula for Migraine.

DUJARDIN-BEAUMETZ recommends: Tincture of gelsemium,  $\mathfrak{f}\ \mathfrak{z}\ \text{ij}\frac{1}{4}$ ; simple syrup,  $\mathfrak{f}\ \mathfrak{z}\ \text{viii}$ . M. S.—Dose, one tablespoonful three or four times a day.

#### Cases Treated with Ipecacuanha Spray.

THE ipecacuanha spray was originally introduced by Dr. WM. MURRELL, for chronic bronchitis and other diseases of the throat and respiratory organs, in consequence of the reputed success attending the use of a nostrum, in both London and Paris, by an irregular practitioner. Dr. Murrell reports a number of cases illustrating its effects in the *Medical Press and Circular*. It was difficult to obtain any clue to the composition of the secret remedy, as apparently the proprietor varied the constituents from time to time, in order to puzzle the analysts and escape detection. Some patients said that it was a clear colorless fluid like water, while others were confident that it was yellow or red, or even

blue. Some thought it was tasteless, while others declared they recognized the not unfamiliar flavor of dry sherry. They all agreed, however, that it was used in the form of a spray, and that its effects were little short of marvellous, a few inhalations affording prompt relief, both to the cough and shortness of breath. It always loosened the phlegm, and frequently gave rise to copious watery expectoration. It obviously belonged to the class of medicinal agents which we call expectorants, and, as there was no reason to suppose that it was a rare or unknown drug, the sphere of investigation was considerably narrowed, for many remedies were obviously unsuited for administration by this particular method. A number of preliminary trials were made which speedily demonstrated that even if the specific were not ipecacuanha wine, that very useful drug entered largely into its composition and that locally applied in the form of a spray it was capable of affording relief to congested and irritated bronchial mucous membranes. Sometimes the ipecacuanha wine pure, or diluted with an equal quantity of water, was used with a small steam vaporizer, but more commonly the ordinary hand-ball spray apparatus, such as is employed for the production of local anæsthesia, was preferred. A solution in spirit, made of the same strength as the wine, was found equally efficacious. After a few visits the patient was usually taught how to use the apparatus himself. Most successful results are obtained from the employment of the ipecacuanha spray in cases of chronic bronchitis and bronchial catarrh. In fibroid phthisis there is often a marked improvement, even when no constitutional treatment is adopted. A single inhalation will sometimes restore the voice in cases of hoarseness due to congestion of the vocal

cords. It is a matter of little importance whether the spray be given with a hand-ball spray apparatus or with a small steam vaporizer. In either case the spray must be warm and the patient should not go out for some minutes after inhaling. Care should be taken to see that the spray really enters the chest, and is not stopped by the arching of the tongue against the wall of the mouth. The best results are obtained by using the spray for about ten minutes three or four times a day. In the majority of cases of winter cough relief will be obtained in ten days.

#### A Handy Cure for Hiccough.

THERE may be some occult connection between hiccough and the auditory apparatus. Not long ago we published an account of somebody's method of stopping hiccough by applying a drop of water to the external ear. Now, Dr. DRESCH, of Foix, France, has written a letter to the editor of the *Bulletin Général de Thérapeutique*, in which he describes another method, almost as simple, also relating to the ear. Dr. Dresch states that the procedure was not original with him, but that he can not remember how it was made known to him. The method is as follows: The sufferer should close his external auditory canals with his fingers, exerting a certain degree of pressure; at the same time he is to drink a few sips of any liquid whatever, the glass or cup being held to his lips by another person. The effect is said to be immediate.—*New York Medical Journal*.

#### Ipecac. in Troublesome Cough.

SOME preparation of ipecac., preferably the fluid extract, not infrequently arrests a troublesome cough—as a cough preventing sleep—if taken at the bed hour.—*Coll. and Clin. Record*.

#### Borofuchsin as a Stain for Tubercle Bacilli.

PROFESSOR LUBIMOFF describes in the *Méditsinkoe Obozrenie* a new stain for tubercle bacilli, which he calls borofuchsin. It consists of: R. Fuchsin,  $7\frac{1}{2}$  grs.; boric acid,  $7\frac{1}{2}$  grs.; absolute alcohol, 4 drams; distilled water, 5 drams.

When prepared in this way it has a slightly acid reaction; it is quite clear and not liable to spoil by being kept, and consequently it is always ready for use. The sputum is dried on a cover-glass and stained by being heated in contact with the borofuchsin for one or two minutes. The stain is then washed out by treatment with dilute sulphuric acid. The specimen is then washed with alcohol, and subsequently immersed for half a minute in a saturated alcoholic solution of methylene blue. After being washed in distilled water and dried, the examination of the specimen is made in oil of cedar or in a solution of Canada balsam. In exactly the same way sections of tuberculous organs may be stained after hardening in spirit, only in such cases the steps of the operation must be somewhat more prolonged. The main difference between this and other staining processes for Koch's bacilli is that, when borofuchsin is used, the process of washing it out with sulphuric acid is an almost instantaneous one. All other bacilli are, as when other stains are used, rendered colorless and invisible, the tubercle bacilli alone being seen.—*Lancet*.

#### Tannin Wool.

DR. RICHARDSON describes a preparation designated tannin wool as being of great service in treating ozæna and other diseases attended with fetid odors. It is prepared by adding pure cotton wool, bit by bit, to a saturated solution of tannin in distilled water, at  $140^{\circ}$  F.,



until all the solution is taken up; then drying the wool slowly in an evaporating dish. It should be kept in a closed bottle in the rough state, and teased out when required for use.

### DISEASES OF CIRCULATORY ORGANS.

#### Action of Green Hellebore Upon the Heart and Circulation.

CHRISTOVICH (*Revista de Ciencias Medicas de Barcelona*), after testing the action of the watery extract of green hellebore root upon dogs and frogs, gave it to eleven patients who were suffering from heart disease, with disturbed compensation. From these observations he obtained the following results:

1. The contractions of the heart were more energetic, which fact could be recognized by the increased strength of the impulse. The heart sounds were louder, and the pulse waves showed increased tension. In those cases in which a difference existed between the number of contractions of the heart and the number of pulse beats, this difference disappeared or became less.

2. The frequency of the contractions of the heart diminished in those cases in which it had been excessive.

3. Irregularity in the rhythm of the heart contractions diminished in a few cases.

4. Congestive symptoms in the lungs, liver and kidneys disappeared or grew fewer.

5. The quantity of urine was increased.

6. Where dropsies existed, these were removed, and the body weight diminished in consequence.

The author found that complication of heart disease with nephritis considerably interfered with the action of the drug. In two cases an infusion of the root (25 parts to 200) was employed in

tablespoonful doses every two hours; and in the remaining cases he gave from 10 to 20 drops of a solution of the extract (one part to 100), from four to six times a day. The clinical observations were conducted under Botkin.—*Medical and Surgical Reporter*.

#### Pyridin as a Cardiac Excitant.

DR. DE RENZI states, in the *Riv. Clin. e Terap.*, that he has found pyridin to be an active 'cardiac excitant. He draws his conclusions regarding the action of the drug from the observation of seven cases which were in his own clinic.

1. Pyridin when given internally in daily doses of six to 10 drops taken in water, is well borne, and may be gradually increased to 25 drops, or even more.

2. The drug increases markedly the cardiac systole and lessens the feeling of oppression and fear.

3. The number of cardiac pulsations lessens after the use of pyridin, simultaneously with the number of respirations.

4. By the use of pyridin the pressure of blood in the arteries is increased. After its use by means of the sphygmometer, the arterial pressure was always found to be greater than before.

5. From numerous graphic tracings it was seen that the ascending line of the curve became much higher; also that the pulsations became much more regular. In one case which had been marked by an arrhythmic pulse, pyridin caused this to entirely disappear, and the pulse became normal and perfectly regular.

6. Pyridin has conquered angina pectoris (?), as it relieves the attacks more quickly and completely than any other remedy. In asystole it is also of great value, as it acts quicker than digitalis, and cumulative effects need not be apprehended.

## CONSTITUTIONAL DISEASES.

### Treatment of Heat Fever.

DR. F. A. PACKARD, of Philadelphia reports thirty-one cases of heat fever treated at the Pennsylvania Hospital during the summer of 1877. The cases were all treated under a canvas roof, covering over a portion of the hospital yard. This was found to be a great convenience, and of benefit to both patients and attendants. As the yard is paved with artificial stone, and could consequently be kept cool by liberal use of the hose, there was a much less impeded circulation of air under the canvas than could have been obtained in a ward, and the cases were removed from the unavoidable bustle and constant motion present in the general receiving ward. Adding to this fact that practically no time at all elapsed between their arrival in ambulance or police patrol wagon and the institution of treatment, the advantages of the temporary ward are apparent.

Almost without exception the cases were brought to the hospital either on the hospital ambulance or on the police patrol wagons, and were usually rubbed with ice on the way up to the hospital. The patrol crews soon learned how to diagnose and temporarily to treat sun-stroke, and on only one occasion was a patient rubbed with ice who was not a fit subject for such treatment. This preliminary icing undoubtedly was of value to the patients as saving time, and it probably kept the temperature record in the cases at a lower average than it would otherwise have obtained.

As soon as a patient with heat fever was brought to the hospital he was placed on a waterproof fracture-bed, his clothing removed as rapidly as possible, a thermometer introduced into the rectum, and ice packed about the body

and extremities. Usually at the outset, ℥ xv or xx of tr. digitalis were administered hypodermatically. The thermometer was removed every seven minutes, the icing being continued until the rectal temperature fell to 104° F. The patient was then dried and put on a clean bed, with an ice-cap to his head, and in favorable cases the temperature gradually fell to normal. It was found that if the icing were continued after the rectal temperature had fallen below 104° F., there was apt to be too rapid and great a fall, so that the application of external heat and free stimulation were required—a state of affairs certainly undesirable.

The above is an outline of the general mode of treatment adopted in the cases with temperature exceeding 106 2-5° F. Those cases with a temperature below that point were stripped and liberally sponged with a mixture of one part of alcohol and four parts of iced water, an ice-cap being applied to the head. If the temperature were not above 106° F., this was always found to be sufficiently active treatment. Subsequent elevations of temperature occurring after primary reduction were treated after the manner indicated above. In but a few cases were any other antipyretic measures adopted.

Other means of treatment were employed to meet individual symptoms in various cases. Where convulsions were present after the temperature had been lowered to a considerable extent, morphia was employed, usually with good effect. In the favorable cases respiration and pulse both improved in character with the fall of temperature, but if they did not do so, bleeding was employed in spite of the feeble pulse, and was almost invariably followed by quieter, fuller respirations, with a soft, steady pulse.

A word in regard to the use of bleeding. When the face was congested or livid, the capillary circulation over the whole body obstructed, the heart as determined by auscultation, laboring to force the blood around the vascular circle, the breathing shallow and stertorous, the contracted pupils with other evidences of obstructed venous circulation in the brain present, the evident indication was to empty the overloaded veins of the blood that was stagnating in them and so embarrassing both respiration and circulation. Wet cupping behind the ears was always first tried, but it was in almost every case impossible to withdraw more than a few thick black drops of intensely altered blood, even when crucial incisions, with a bistoury were added to the smaller incisions of the scarificator. In no case where it was attempted could enough blood be withdrawn by this means to affect either the general or cerebral circulation. Bleeding from the median basilic was then, if deemed necessary, employed, and even with this free outlet the blood did not flow, but had to be squeezed up from the hand, issuing then in thick, black jets and ceasing as soon as upward pressure with the hand was discontinued. After the withdrawal by this means of from twelve to sixteen ounces of blood there was usually marked improvement in circulation, respiration and color, with in some cases complete or partial return of consciousness.—*American Journal Med. Sciences.*

#### Contraindications and Dangers of Antipyrin.

ELOY calls attention to the unpleasant and sometimes dangerous effects of antipyrin, which he has collated from existing literature.

Nausea, vomiting, and gastro-intestinal disorders may result from the use

of the drug. Syncope has occurred, and Bentzeff believes that the drug always causes this tendency. The opinions of Moncorvo and Dujardin-Beaumetz are quoted to show that the drug modifies the secretion of urine, and it is said that it closes or shuts up the kidneys. Barr has recently recorded a case of collapse and death following the administration of from gr. 15 to 30 in two doses. In one case of puerperal fever the drug caused a fall of more than  $2.5^{\circ}$  C., with vomiting and diarrhea. Rigors then came on, the extremities became livid, and the patient died in syncope in 32 hours. An autopsy showed the spleen contracted, the kidneys shrunken and containing infarcts. [It appears, however, that Eloy has not made out his case against antipyrin. In the case of puerperal fever there is no evidence against the drug from the report of the autopsy. It is not fair to attribute every and any unfavorable turn in a case to the use of the drug last administered.] *Revue Gén. de Clin. et de Thérap.*

#### Weil's Disease.

IN the *Deutsches Archiv. für klinische Medicin*, DR. A. FIEDLER gives the following summary of this disease, which was first described by Weil in 1886: It is an acute infectious or toxic disease which has nothing in common with abdominal typhus nor with any other known disease, but is a disease *sui generis*. It begins quite without premonitory disorder, and often suddenly with a chill. Symptoms always present are fever, headache, gastric disorder, jaundice and muscular pains, especially in the peronei. The fever has a typical course and continues from eight to ten days. Occasionally after the fall in temperature, which takes place gradually, a relapse of the fever occurs. The pulse at the beginning of the attack is fre-

quent, but subsequently becomes sub-normal. The spleen and liver are frequently, but not always swollen, and the liver is often tender upon pressure. Nephritis is frequently present, and at times herpes and erythema. The prognosis is generally favorable. It attacks especially men in the prime of life, and appears preferably in summer. The bearer of the disease is still entirely unknown; but the circumstance that among twelve male patients, nine were butchers, makes it probable that men of this occupation are affected in a higher degree, or more easily, by the noxiousness which causes the disease, than are other persons.—*Med. and Surg. Reporter.*

#### Measures for the Antiseptic Treatment of the Throat in Diphtheria.

1. M. GAUCHER'S method is to rub the affected surface with a cotton covered probe soaked in an alcoholic solution of camphor and carbolic acid. This is done twice daily. In the intervals the parts are washed with a one per cent. solution of carbolic acid.

2. The method of Bouffé is to give one teaspoonful every two hours of the following:  $\mathcal{R}$ . Succ. limon., 30.00 grams; sodæ sulphat.; sodæ chlorid.,  $\text{āā}$  5.0 grams; ferri saccharat., 3.0 grams; sodæ phenat.,  $\mathfrak{M}$  xxv; mellis, 3.0 grams. M.

The same solution is used as a gargle.

3. The treatment suggested by Osicki is to paint the parts with the following:  $\mathcal{R}$ . Tinct. rhatan., 10.0 grams; tinct. benzoin., 5.0 grams; tinct. aloes, 3.0 grams. M.

After each application the following powder is insufflated:  $\mathcal{R}$ . Sulphur. precip., potas. chlorat.,  $\text{āā}$  5.0 grams; acid. tannic., 1.5 grams. M.

4. The so-called combined antiseptic treatment consists of painting the parts four times daily with an alcoholic solution of corrosive sublimate, 1 to 1000.

In the intervals the parts are irrigated with a one per cent. solution of boric acid. Internally there is given every hour a teaspoonful of the potion of Letzovich. The formula for this is:  $\mathcal{R}$ . Sodii benzoat., 5 to 15 grams; aquæ q. s. to dissolve. To this add:  $\mathcal{R}$ . Aquæ menth. pip., 50.0 grams; syr. aurant. cort., 10.0 grams. M.

With the above is given plenty of alcohol internally.—*Coll. and Clin. Record.*

#### Detection of Cotton Seed Oil in Olive Oil.

EARNEST MILLIAN, of Marseilles gives the following as a ready method of detecting cotton-seed oil in olive oil: It is based on the power of reducing the fatty acids of cotton-seed oil. In a porcelain dish holding about 1000 cc., heat 15 cc. of the oil to be examined, to 110° C. Then, the heat being continued, turn slowly into the oil a mixture of 15 cc. of a solution of caustic soda in distilled water, at 40° Baumé, and 15 cc. of alcohol, at 92°. After the mass has become homogeneous by ebullition, indicating complete saponification, add drop by drop, so as not to cool the mass nor form lumps, about 500 cc. of distilled water. After boiling for a few minutes, the fatty acid may be separated by means of a 1:10 solution of pure sulphuric acid. When the separation is complete, and the sulphuric acid is slightly in excess, collect 5 cc. of the fatty acids with a silver spoon, and place in a test-tube—one about 3 cm. in diameter and 12 cm. long. Now add 20 cc. of alcohol at 92°, and heat slightly on a water-bath to dissolve the fatty acids. These being dissolved, pour in 2 cc. of a solution of pure nitrate of silver (30 grams to 100 cc. of distilled water), replace the tube on the water-bath, and heat until about a third of the mass is evaporated; take from the bath and the operation is over



Whatever be the source of olive oil its fatty acids remain unaltered if the oil is pure; if, on the contrary, the oil contain cotton-seed oil, even as little as 1 per cent., there is a reduction, and the metallic silver set free gives a black color to the fatty acids of the mixture as they rise to the surface.—*Nouveaux Remèdes*.—*Therapeutic Gazette*.

#### A New Method for Identifying Blood Stains.

DR. FERRY has described a new method for the medico-legal examination of blood stains. If the marks be upon linen, fibers are to be teased out with a needle and placed in a tube containing a one-thousandth solution of chloride of sodium. The fluid will soon become of a reddish-brown color. This liquid, then examined by the spectroscope, will present the characteristic lines of hæmoglobin. For the examination of the blood globules one or two drops of a saturated solution of chloral are to be added to the fluid, when a rose colored precipitate will be obtained. A drop of the precipitate is to be exposed on a thin plate over the flame of a spirit lamp. A clear liquid will be separated, and may be taken up by blotting-paper. The pellicle of coagulum that is left should be colored with fuchsin, then washed with water. A drop of diluted acetic acid will render the preparation transparent, and the globules will become visible in bright red.—*Progrès Médical*.—*Medical Register*.

#### The Bromides.

DR. WM. MURRELL, in the *Hospital Gazette*, says:—

There are three officinal bromides—the bromides of potassium, sodium, and ammonium. Certain effects are produced by the long continued use of the bromides, to which the term "bromism" is applied.

The symptoms constituting bromism are:

1. An eruption like acne, which may go on to the formation of boils or even small ulcers. It is seen chiefly on the face and back. The face, at the same time, presents a muddy or dusky hue.
2. Abolition of reflex action of the soft palate, evidenced by absence of movement when the back of the throat is irritated. Although reflex irritability is lessened, there is no true anesthesia, the pain of an operation on the part being felt.
3. The intellectual faculties are blunted, the memory is impaired, the ideas confused, the patient is dull, stupid, and apathetic, and has a constant desire to sleep.
4. The speech is slow and impaired, the tongue is tremulous, the body is infirm, the limbs are feeble, the gait is staggering, and the movements are inco-ordinated.
5. The sexual powers are impaired or even temporarily abolished.
6. There is general cachexia.

These symptoms are for the most part due to impairment of the functions of the spinal cord and brain. They soon disappear when the administration of the drug is discontinued.

The bromides are absorbed by the stomach and pass quickly into the circulation. In animals the bromides give rise to a diminution of reflex irritability and cutaneous sensibility, due in part to the effect of the drug on the cord, and in part to its influence on the sensory nerves. They contract the blood vessels, including those of the brain, and induce anemia of that organ. The potassium compound is more depressing than the ammonium, the ammonium more than the sodium.

Applied topically, bromide of potassium impairs the contractility of the

voluntary muscles and destroys the functions of the motor nerves. It lessens the frequency and force of the heart's contractions, shortening the systole, and prolonging diastole, finally arresting it in a condition of diastole. The action on the heart is probably due to the potassium of the salt, and not to the bromine.

The bromides are eliminated with the urine, and traces may be detected within ten minutes of taking a dose; as excretion takes place slowly, they may appear for some days after the drug has been discontinued. They may be detected in the milk, sweat, and saliva.

#### Physiological and Therapeutic Properties of Oleander.

DR. POULOUX, at the close of a thesis on this subject, draws the following conclusions :

1. Oleander (*nerium oleander*) is a very active poison, the toxic properties of which are due to several substances somewhat similar to strophanthine and digitaline, and probably belonging to the group of glucosides.

2. Oleander has a manifest action on the frog's heart, arresting it in systole, as well as on the heart of the rabbit.

3. In cases of asystolism due to renal, non compensated or cardiac lesion, oleander gives tone to the heart, and increases diuresis. It seems to be indicated in the same cases as digitalis.

4. Further researches are necessary to determine the cases in which oleander is really useful and in which it is contraindicated.

5. It does not cause cumulative symptoms, and may be given for an indefinite time without causing accidents.  
—*Nouveaux Remèdes*.

#### Therapeutical Value of the Passion-Flower.

WINTERBURN claims high medicinal virtues for the passion-flower. He says

that its therapeutic properties resemble those of the bromides on one hand and those of gelsemium on the other. It is one of our best hypnotics, producing a quiet, pleasant sleep—altogether different from the comatose stupor of morphine—from which the patient may be aroused any moment. It may be given in doses of 2 to 3 drops of the tincture. Even in the worst form of sleeplessness, that associated with suicidal mania, this drug will produce quiet sleep, from which the patient awakes with clear mind and rational thoughts. In its control of convulsions, *Passiflora* closely resembles gelsemium. It will be found of service in opisthotonos, trismus, and tetanus.—*American Homœopath.*

#### Action of Strophanthine.

GLEY claims that his effects from strophanthine are entirely different from those obtained by Lemoigne with extract of strophanthus. He has found that not only in diuresis not produced by the active principle, but that the quantity of urine is diminished, and that the kidney decreases in size, as shown by mensuration. There is an enormous increase in central and peripheral pressure. These facts seem to show that there is some other substance in the extract than the active principle.

#### Early Rising and Longevity.

PROFESSOR HUMPHRY's recent Collective Investigation Report on Aged Persons, contains some very positive evidence on a matter which has already engaged the attention of moralists as well as physicians. "The opportunity for nutrition to do its restorative work was in nearly all provided by the faculty of 'good sleeping,' to which was commonly added its appropriate attendant, the habit of 'early rising.'" Thus there is a relation between early rising

and longevity. No doubt many people will hastily seize upon the sentence just quoted, and employ it in edifying lectures or essays for the perusal of youth, or embody it in popular medical works. Important qualifications follow in Dr. Humphry's report, but they are likely to be overlooked. Doubtless the habit of early rising is, in itself, healthy; most of all, it is a good sign of health when it evidently signifies rapid recovery from fatigue. Again, it usually denotes a strong will, the gift as a rule of a good physical constitution, or at least the safeguard of average bodily strength. Late risers are generally either invalids or persons of bad habits, idlers who are never free from other vices besides idleness. The nervous exhaustion which keeps a man wakeful throughout the small hours produces sleep late in the morning. This exhaustion is invariably due to one of several life shortening influences, especially anxiety, or indiscretion in diet or drink. Early rising is thus rather one effect of certain favorable influences, another result of which is longevity, than a cause of longevity. To turn a weakly man out of bed every morning at 7 o'clock will not prolong his life. It will be noted that by good sleeping Professor Humphry signifies quick sleeping, that is, the reparative work which has to be done in sleep is done briskly and well. Here, again, we have an effect of a cause; but preventing a weakly subject from sleeping more than four or five hours nightly would not cause him to live long, but would rather tend to shorten his life. Equally important are Professor Humphry's observations which show that by early he does not entirely mean the time by the clock. The word has a relative significance with reference to the time of going to bed. A person who retires to rest four hours after

midnight and gets up at 10 a. m., may be strictly regarded as an early riser. Thus, early rising is synonymous in long life histories, with short sleeping, which means rapid recovery from fatigue, a sign of bodily strength. These scientific facts in no wise contradict the alleged value of early rising as a practice to be cultivated by all persons in good health. It is excellent as moral discipline, and eminently healthy as a matter of fact. Most persons will eat three meals daily. When a man gets up late those meals will probably follow each other at too short intervals to be wholesome. When he is an early riser it will probably be otherwise. He can enjoy a good breakfast, and by the time for his mid-day meal he will have an honest appetite.—*British Med. Journal.*

#### A General Antidote for Poisons.

ACCORDING to the *American Journal of Pharmacy*, a general antidote for poisons may be made by mixing equal parts of calcined magnesia, wood charcoal, and hydrated oxide of iron, and is applicable in cases in which the poison is unknown. It should not, of course, supersede the stomach pump or other forms of emesis.

#### Muscular Rheumatism.

A CASE of muscular rheumatism presented to the clinic was treated by giving, internally, 20-grain doses of muriate of ammonium three times a day, and externally, a liniment containing:—℞. *Aquæ ammonii*, f ʒ j; *spirit. rosmarini*, f ʒ iij; *liniment saponis*, f ʒ ij. M.

#### Tar Water in Hemorrhage.

DR. DE SAINT-MARC finds that distilled tar water has a hæmostatic effect very similar to that of hamamelis. When prepared with the tar of pine wood it has valuable tonic astringent properties.

It may be administered in quantities of from 10 to 15 drams, during the twenty-four hours, in congestive pulmonary hemorrhage, and in hemorrhage of the uterus and kidney. It arrests the hemorrhage of the first stages of phthisis with remarkable promptitude.—*Lancet*.

#### Salts.

PROFESSOR BARTHOLOW recommends the following plan to disguise the disagreeable taste of Epsom salts. Boil for two minutes in an earthen vessel one ounce of sulphate of magnesia and two and one half drams of roasted coffee in a pint of water.—*Coll. & Clin. Record*.

### DISEASES OF THE NERVOUS SYSTEM.

#### Sulphonal.

MR. ERNEST LOVEGROVE states that the effects of sulphonal upon patients is very discouraging. He finds that for several hours after taking the drug no appreciable effect could be observed, but during the greater part of the following day there was extreme drowsiness, also considerable cyanosis. The best mode of administering sulphonal is to mix it with pulv. tragacanth co. and water.—*British Medical Journal*.

#### To Relieve Pain After Abstraction of a Tooth.

DR. L. P. BETHEL, in the *Ohio Dental Journal*, suggests that a little of the following mixture be applied to the cavity, on cotton, and allowed to remain a few minutes:—℞. Etheris, f ʒ j; ol. caryophylli, gtt. iij; acid. carbolic., gtt. j. M.—*Coll. & Clin. Record*.

#### Neuralgia.

As a local application in neuralgia, *L'Union Médicale* recommends the following:—℞. Alcohol. camphor., p. 90; æther. sulphuric., p. 38; tinct. opii, p. 6; chloroform, p. 20. Saturate a flannel with it, and lay it over the painful part, covering with impervious material.—*Ibid*.

#### Chorea.

PROFESSOR BARTHOLOW prescribed three-grain doses of acetanilide for a small girl suffering from chorea, all the muscles being the seat of jactitation.—*Coll. & Clin. Record*.

#### Gouty Peripheral Neuritis.

IN an interesting account of a case of peripheral gouty neuritis, in the *Bristol Medico-Chirurgical Journal*, MR. F. W. JOLLYE gives the following symptoms as being in favor of his diagnosis of peripheral neuritis:

1. The pain remained limited to one side for some time before suddenly appearing on the other.
2. The lightning-like pains in the extremities, and the "pins and needles" in the fingers and toes.
3. The marked tenderness of several nerve-trunks.
4. The hyperæsthesia and wasting of the muscles of the extremities, accompanied by the R. D.
5. The vasomotor disturbances.
6. The paralysis beginning in extensors and spreading towards the trunk, and afterwards affecting to a slighter extent the hands and arms.
7. The decided intermissions of pain which the patient frequently enjoyed during the earlier stages of the disease.
8. The relief from pain during the attack of gout.
9. The retention of urine coming on as a very late symptom.
10. No affection of the mental faculties.
11. Absence of bedsores.

#### The Weir-Mitchell Fattening Cure and its Successes in Neurasthenia and Hysteria.

DR. M. W. GETTERMANN, of Hannover:

Among the diseases of our nervous system, a peculiar class has attracted a lively interest in later years. I mean that class which, in the absence of all anatomical derangements, is viewed as a condition of general functional disturbances; the severe forms of neurasthe-



nia and hysteria, mostly connected with deep nutrital perturbations. It is not my intention here to examine in detail the nature of these diseases; what I wish to state will be limited to the discussion of a method which is certainly destined to play a considerable part in the treatment of certain forms of neurasthenia and hysteria.

Rest, good alimentation, electricity and massage, besides numerous other therapeutic measures, are the remedies which in the past have been opposed to the diseases referred to, with varying, although mostly negative, results. The merit of having built up from these elements a systematic plan of therapeutic treatment, belongs to Professor Weir-Mitchell, who, in 1884, published his ideas in print. I was in a position as balneary physician in Alexandersbad last summer to convince myself personally of the excellence of this method, and would ask permission, after explaining the whole treatment, to relate briefly my own experiences and results.

Weir-Mitchell starts from the principle that a rapid and steady decrease of the normal quantity of fatty matter is always a symptom of morbidity, and that this loss of fatty matter is always accompanied by a deterioration of the blood. If it should be feasible, therefore, to restore to a pale, emaciated man a greater quantity of fat and more abundant blood, he would enter the path of recovery! But this result is not to be obtained by simple over-feeding, inasmuch as just such debilitated, anæmic subjects have been deprived of the faculty of assimilating what they would have to take.

To reach the desired result a special method is necessary, and this method, according to Weir-Mitchell, consists in a combination of absolute rest with massage. The diseases for which this

treatment is stated to be applicable, are kept by Weir-Mitchell within very narrow limits. Persons who have become miserable and unable to work in consequence of permanent dyspepsia; persons who have lost all freshness of body and all elasticity of mind through intellectual overwork, cares and sorrows, sufferings and other deep mental excitations; women who, besides emaciation and anæmia, present the image of nervous exhaustion or, may be, of spinal irritation with all its manifold symptoms—such are cases which Mitchell designates as within the scope of his method.

Morbus Brightii forms a counter-indication; all actual diseases, the anatomical cause of which is still in existence, are not fit to give a favorable result. Neither are cases of real melancholy to be attacked by this treatment.

Abundant, appropriate alimentation, absolute bed rest, electricity and massage are then the curative potency of this well considered and energetically realized, remedial system. With much reason Mitchell insists that patients should always be isolated during treatment and withdrawn from the often too tender attentions of their friends. In order to preserve for the debilitated body the forces still existing, which will become necessary for the digestion of the aliments introduced in abundance, to restore the over-excited and weak nervous system, it is rest that is required, while abundant alimentation is destined to re-adduce the lost substances. On the other hand, rest and over-alimentation would exclude each other, but for the daily application of massage and electricity, exciting the transformation of matter, depressed by rest. Passive motion, therefore, has to replace active motion and this is effected without the effort of volition and without activity of the nervous centre.

Mitchell attaches special importance to electricity, careful investigations having proved to him that after its application the temperature constantly rises 1-10 to 3-10 degrees—a sign pointing to a considerable influence on the combustion process in the tissues.

I cannot enter here into a description of the method in all its particulars; as far as they will not result from the statements of my own experiments, I must refer to the translation of Mitchell's book, published last year.

The author proceeds to the enumeration of four cases which had been treated by him after the Mitchell method, and comes to the conclusion that in three of them there was a marked improvement, almost tantamount to recovery. The first case was a farmer, twenty-four years old, in former years addicted to masturbation, emaciated (weight 112 pounds), pallid complexion with deeply melancholy expression in his countenance, great difficulty in walking, heavy pains in the lower pectoral and the upper lumbar vertebræ, complete loss of appetite, increasing physical and mental debility. After eight weeks of treatment his weight had increased 32½ pounds, his general appearance was good, freshness and strength, as well as cheerfulness and intellectual vigor, were restored.

The second case was a lady, twenty-six years old, unmarried, of healthy family, suffering for years from indigestion and poorness of blood; in the last year, increasing physical and mental debility in consequence of intellectual over-exertion, no appetite, sleep unsatisfactory, headache and dizziness, general lassitude, painfulness of the stomachic region, anæmia in the highest degree and emaciation (weight 95 pounds). After five weeks' treatment weight had increased 7½ pounds, appe-

tite and sleep were good, general appearance and strength had improved. Unfortunately, patient was compelled to leave, the probability being that she would now have progressed more rapidly towards complete recovery.

The third case was a lady, thirty-two years old, unmarried, affected for nine years with pronounced hysteria, with aggravation of all symptoms in the last two years; patient complains of sleeplessness, great uneasiness and pains in all limbs, especially in the left ear and in the left ovarian region, a slight pressure on this place being sufficient to cause a hysterical fit, painfulness of the whole vertebral column, great irritability of the whole nervous system, loud talking or knocking being sufficient to induce violent and protracted trembling of the whole body, menstruation irregular and very scarce, before its appearance always aggravation of the whole condition, complete absence of appetite and, as a consequence, emaciation and decadence of strength in latter times. The application of the fattening cure met with considerable obstacles in this case. Nevertheless, six weeks after beginning, the whole morbid condition had disappeared; patient enjoyed excellent sleep, took her meals with good appetite at the common table of the institution, took part in all conversations and was able, without inconvenience, to indulge in long walking expeditions. Menses appeared at the right time, were more abundant, pains insignificant. Her weight had increased considerably.

The fourth case was a lady, thirty-two years old, having been confined three times and suffering for years with ischias of the left side and increasing hysterical disturbances. After all other methods had proved useless, patient was subjected to the fattening cure, which had no better result.

Summing up, the author says: The first three cases show in a decided manner that Mitchell's fattening cure was accompanied by results, nearly equalling recovery. Although I am not yet in a position to say whether this recovery will be permanent, the result obtained is in itself important enough, considering the desperate nature of the cases under treatment, which for years had defied all other methods. It is well known how difficult it is to restore blood and fat in sufficient quantities to anæmic, emaciated persons; in this respect the results obtained will secure to the Mitchell cure an honorable place.

The fourth case, with its entirely negative result cannot modify this general conclusion. It only shows that not every case is adapted to the cure. It was evident for me from the beginning that ischias was not to be cured by this method. My only expectation was that the general condition of the patient could be raised, so as then to combat the ischiaic affection with increased energy. The result, however, has proved that there is no effect to be expected from the cure, as long as there exists an anatomical disturbance which is to be considered, at the same time, as the cause of all other phenomena. The hysterical troubles, in this case, were most likely directly dependent on the ischiaic affection; the latter one remained in existence, and therefore was opposed to all improvement.

The four cases in question would scarcely bear out the idea of any new experiences; yet, having seen the patients for eight weeks several times every day, and having mostly practiced personally the different parts of the method, certain peculiar facts have come under my observation, which of course, are first to be firmly established by ulterior experiments.

The unfavorable result of my last case is fully in accordance with Mitchell's experience, that diseases of a really organic nature are not a good prognostic for the cure; it is advisable therefore, to exclude all such cases.

Neither is the whole crowd of neurasthenic and hysterics a fit object for the fattening cure. I am inclined to view, as the best cases among them, that class of morbid conditions in which, without the existence of any organic disease, the nervous disturbances appear to be in direct relationship to co-existing emaciation and anæmia. Patients however, who, with a strong physical constitution and healthy appearance, are always prone to prefer general complaints about nervous sufferings, whose disease, therefore, seems to partake more of a psychical nature, are likely to look in vain to the cure for their restoration. "The deeper the system is shattered, the completer is the result," says Mitchell, and, I believe, with perfect reason. Nothing is more irritating for an emaciated, nervous person than the frequently repeated answer of the balance that there has been again a decrease in weight; conversely, it is to be supposed that, during the fattening cure, the steady increase in the feeling of strength and ease and the almost visible bodily expansion will produce a most encouraging impression on such reduced patients, and incite the mind, hitherto anxious and hopeless, to a firm belief in certain recovery. This moral element is absent in all patients who, although being nervous, are otherwise in good bodily health. I would insist particularly on the rule of admitting to the cure such patients only who have preserved at least part of their mental energy. This energy being entirely lost, the patient will only with difficulty allow himself to be subjected to all the therapeutic

agents of the treatment. Earnest persuasion and even, if necessary, severity of the physician have to come into action in this case.

In the beginning, every patient will oppose some resistance to the application of electricity and massage, as long as he has not convinced himself of the necessity of these therapeutic agents; it seems to me necessary therefore, to begin very cautiously and gently with both. I don't think that Faradization is supported by all patients; whether in such cases it is entirely to be foregone, is an open question to be solved by further investigations. Under all circumstances, I would advise to begin with short sittings and currents of moderate strength, as well as to apply slow induction shocks, so as to avoid any frightening effect. With regard to massage, I have attached considerable importance to the fact that the dolorous places should receive its principal effects. This is not always very easy and requires great ability and perseverance on the part of the masseur. In the third case above mentioned, it seemed almost impossible even to touch the left ovarian region, and yet, after repeatedly renewed trials, I have succeeded in finally performing the most vigorous massage in this place. This very patient, I believe, owes mostly to massage the favorable termination of her disease; its effect seeming to be of a directly quieting nature, as soon as the sittings were supported at all.

With regard to the season, in which a fattening cure ought to be undertaken, I have come to the conclusion that the hot months are least appropriate. Although I had the treatment performed in rooms of cool location, my patients were much affected by the heat and the sojourn in bed seemed to become more intolerable in proportion of the forces

adduced to the emaciated body. I therefore, transferred my patients to hammocks in shadowy locations during the hot part of the day.

The only question which may remain to be answered is: "Where ought a fattening cure to be instituted?" I think the choice of the locality is indifferent, provided good hygienic conditions and isolation of the patients is taken care of. They have to be withdrawn from the spoiling influence of the family and transported among strangers, who, of course, ought not to be unsympathetic to them in any way. Selection of nurses ought to be, therefore, attended to with peculiar care. On the other hand, it is not always absolutely necessary, in my opinion, to send patients for fattening cure to a bathing place or to an institution; the value of the whole method seems to me rather founded partially on the fact that it does not attach any particular importance to locality and that every physician is put in a possibility to treat his patients himself personally.—*Deutsche-Med.-Zeit.*—*Pacific Record.*

## DIGESTIVE TRACT.

### Treatment of Fetid Diarrhea.

THE following methods of treating fetid diarrhea are recommended in the *Bulletin Médical*, and may be recommended now, when such troubles are likely to occur frequently:  $\mathcal{R}$ . Salicylate of bismuth, calcined magnesia, chalk, phosphate of lime, of each  $2\frac{1}{2}$  drams. Rub to a smooth powder. Sig.—A half teaspoonful twice a day.

With this give an enema composed of: Salicylate of bismuth,  $2\frac{1}{2}$  drams, salicylic acid, 15 grains, boiled water, 5 fluid ounces. At the same time a strengthening diet may be used.

Another method is to use the following prescription:  $\mathcal{R}$ . Naphthaline (pure),



sugar, of each a dram and 15 grains, essence of bergamot, one or two drops. Rub to a smooth powder and divide into twenty parts : Sig.—Take one every hour.

With this the following may be used as an enema : *R.* Naphthol, 30 grains, alcohol, a fluid dram and a half. After the naphthol is dissolved, add a pint of boiled water.—*Med. Med. Journal.*

#### Dilatation of the Stomach.

PROFESSOR DA COSTA says the proper method of examining a patient for dilatation of the stomach is by percussion after he has drunk a large quantity of water.—*Coll. & Clin. Record.*

#### Hydrofluoric Acid in Digestion.

Most of the authors who have employed hydrofluoric acid in the treatment of phthisis have been struck with the fact that the patients who use it show decided increase of appetite. Lépine suggests that this action is the result of a direct influence of the acid upon the mucous membrane of the stomach. In order to test this he gave the drug to chlorotic patients and found that it answered as well as hydrochloric acid.—*Bulletin Médical.*

#### Treatment of Chronic Dysentery and Its Allies.

DR. F. P. NICHOLS (*British Medical Journal*) : It has appeared to me, from observation of a good many cases of the above diseases, that a considerable number of patients, presenting a close uniformity of symptoms, gain marked benefit from a treatment differing in some respects from that usually adopted. The class of cases I refer to generally admit long standing constipation, followed on arrival, or after living some years in India, by what they call "diarrhea and dysentery." They complain of frequent passage of small, bloody stools,

inability to hold their motions, with more or less abdominal discomfort and dyspeptic symptoms. On careful examination it is found that there is no proper diarrhea ; the motions are lumpy, often consisting of half-digested materials, with a large quantity of blood-stained mucus, and though frequent, but little true fecal matter passes. In these cases a prolonged course of saline aperients has a remarkable effect, the disease being to a large extent mechanical, the result of hardened feces passing over an irritable mucous membrane. As a rule, these patients have never had an acute attack of dysentery, and the above simple treatment, combined with an easily digested, nutritious diet, often suffices to cure them. In cases where the chronic is a sequel to a more or less recent acute attack, the disease is more obstinate, and the treatment requires to be persevered in long after apparent recovery. I make no claim to originality either for the observation or treatment of this condition ; I merely wish to record that, as regards treatment, I have found great advantage in drawing a sharp line between "constipatory" and "diarrheic" desentery.

#### A Convenient Formula for the Treatment of Tape Worm.

OIL of male fern may be conveniently administered in the following combination : Ethereal oil of male fern, ℥ 45 ; tinct. vanillæ, ℥ 45 ; syrup rubi. ʒ 6¼ ; gum acac., pulv. gr. 30 ; aquæ destill., ʒ 6¼. To be taken at one dose, in an equal quantity of milk. Castor oil should be taken two hours afterward.—*L'Union Médicale.*

#### DISEASES OF RESPIRATORY ORGANS.

##### New Inventions.

AT the ninth meeting of the American Laryngological Association, Dr. E. CARROLL MORGAN, of Washington,

D. C., exhibited a Universal Scoop Powder-Blower, suitable for office work or outdoor practice, which can be worked at pleasure by either rubber bulbs or the compressed air office receiver.

The instrument is of hard rubber, has removable screw-tips for antero-nasal, post-nasal, pharyngeal, laryngeal, aural, vaginal, rectal and other work. These various tips have threads, and can be screwed to the instrument, thus securing perfect safety. The scoop is secured to the handle by a bayonet fitting. The air-blast which propels the powder is under the control of a trigger-valve, the spring of which can be made of any desired resistance, from a hair trigger up.

A pair of rubber bulbs are to be attached to the bayonet fitting seen in the cut, at the end of the handle, and to the right of the trigger.

To work the instrument, select and screw on the required tip, and take up the desired amount of powder by the scoop, which it to be slipped into the handle.

Work the bulbs until they are sufficiently distended. The trigger-valve will prevent the escape of air until you have the instrument in position and are ready to discharge it by pressing the trigger.

By means of the shovel or scoop, the exact quantity of powder which it is desirable to apply to a diseased part, can be readily measured and as rapidly insufflated.

It will be seen that in using the powder-blower no sucking up of mucus and baking of powder in the end of the tube so common in other insufflators, can possibly occur.

Again, the instrument being really an air gun, charged with compressed air and loaded with a known quantity of medicine, by simply touching the trigger the powder is discharged. It is not

necessary to make sudden pressure upon a bulb, which results often in throwing the end of the insufflator, and thus the powder, away from the diseased part, and, in case the bulb is allowed to expand prior to withdrawal, in the filling of the extremity of the insufflator with foul secretions. When the instrument

is to be worked by the office air-receiver, the ordinary cut-off is simply attached to the metallic fitting provided on the handle, the cut-off being locked back and the air-blast controlled by the trigger as when using the bulbs.

The small hook on the handle beneath the trigger is to lock it also, if desired.

This instrument has in a modified form the better qualities of several

insufflators and some original points which render it the most desirable powder-blower procurable. It is made by Chas. Truax & Co., Chicago, and can be obtained with a straight handle as shown in the cut, or with the handle placed at an angle of 45° to the staff of the instrument.—*N. Y. Med. Journal.*



#### A New Combination Clinical Atomizer; Insufflator, Continuous Syringe, &c.

It is represented by fig. 1, as an atomizer. The bottle for holding the fluid is made of hard rubber or glass fitted with valved stopper.

The bottle passes through a threaded ring into a bulb of the best shape for obtaining an easy and steady pressure of air.

The bottle can be readily removed

for re-filling; and all the parts are simple and easily adjusted.

This atomizer can be conveniently carried in the pocket without danger of breakage, leakage or evaporation.

It requires but one hand to manipulate it, leaving the other free to control the patient.

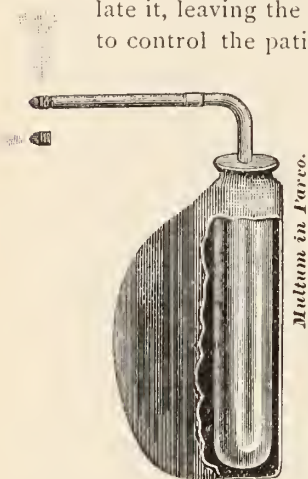


FIG. 1.

The fluid receptacle is constructed so as to utilize every drop of the fluid.

The hard rubber tubes, are manufactured of the best German rubber, and throw a finely atomized spray.

The various atomizing tubes and liquid receptacle can be instantly changed and adjusted, requiring but one bulb.

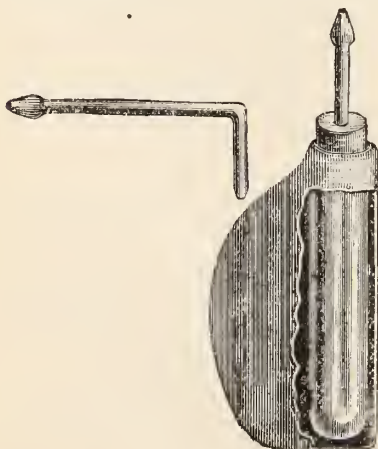


FIG. 2.

Fig. 2, represents the apparatus as a powder blower.

As the powder is contained in a glass bottle, it is always easy to tell how much you have in the blower and how much you are using.

It is more readily filled than any other, and the powder does not absorb the odor of the rubber.

The powder does not issue *en masse*, but is exactly regulated by pressure.

There is no back suction of mucus.

The bottles used in the atomizer and powder blower can also be used on the office air-receiver by using a simple attachment.

Every variety and shape of tube can be instantly adjusted.

There are many other purposes for which the apparatus can be used, by having tubes and syringe pipes adapted to each case.

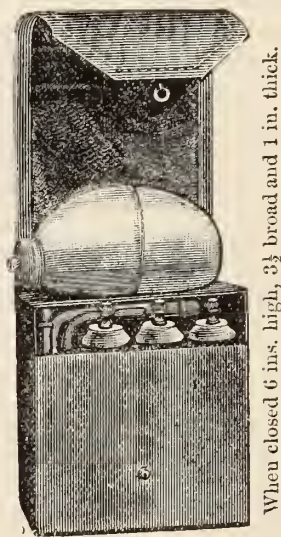


FIG. 3.

Fig. 3 represents a small leather case containing both hard rubber and glass bottles, and a variety of spray and powder tubes. It can be conveniently carried in the pocket.

This apparatus is manufactured by the Physicians' Supply M'f'g Co., 140 Nassau Street, New York, and was designed by a specialist in throat diseases.

**Bloodletting in Pneumonia.**

IN a paper recently read before the College of Physicians of Philadelphia, Dr. HENRY HARTSHORNE contrasts the mortality from pneumonia in the present day with that formerly prevailing, and advocates a return to bloodletting in the treatment of this disease. His arguments have been criticised as follows in the editorial columns of the *Lancet*:

His object may be best gleaned by quoting his own words. He says, "My thesis is this: That the mortality of acute pneumonia, croupous and catarrhal, is decidedly greater now than forty years ago, especially when it occurs in young or middle-aged patients of previously good health; and that this increase of mortality coincides with a prevailing change of treatment in such a manner as strongly to suggest, if it does not absolutely prove, that the principle of that change is erroneous, either in what it omits or in what it adds, or in both. In brief, his essay amounts to an attack on the present mode of treating pneumonia, and an advocacy for a return, in part at least, to the disused practice of bloodletting. He commences his argument by summarizing the statements made in an able article which appeared in the *British and Foreign Medico-Chirurgical Review*, when the antivenesection movement was at its height, the reasons for the abandonment of the lancet being change of type, according to Dr. Allison, and a sounder pathology, according to Dr. Hughes Bennett. It would be impossible to reproduce the statistics quoted by the writer from many sources; we must content ourselves with noting that he estimates therefrom the average mortality of pneumonia in the second quarter of the present century as being from eight to nine per cent., or less than half the present estimated mortality of eighteen

per cent. given by the British Collective Investigation Committee; and he asserts confidently that the fatal cases include a larger proportion of individuals in the prime of life, and of previously good health, than was the case half a century ago. Such a conclusion cannot be attributed to improved diagnosis, for, if anything, this argument would tell the other way, by the inclusion of cases of tuberculosis in the list of the pre-tuberculous period. As to the change of type theory, while admitting the possibility of a lowered general vitality from overcrowding in large towns, and other causes of modern life, it is a fact that the average duration of life has increased from improved sanitation; and he does well to point out that this theory was promulgated coincidently with the abandonment of lowering measures of treatment. If, then, neither the nature of the disease nor the vitality of its victims can be said to have undergone any change, what is there left but to attribute the alleged heightening of mortality to altered lines of treatment? It is the substitution of bloodletting and purging—*i. e.*, of depleting measures—by restorative and stimulant methods, or the less active expectancy, and reliance upon anti-pyretics, that constitutes the radical change to which Dr. Harts-horne refers. He advocates, therefore, a return to a discriminate degree of local and general bloodletting, on the ground of its lower vascular tension, and even on the more ancient ground of elimination. The prescription of saline purgatives, diuretics, and diaphoretics should, he holds, be reintroduced, while opium ought to be almost entirely banished. Nor does he see that we have gained much by the introduction of the antipyretic drugs in place of the old fashioned febrifuges above indicated. The heart failure, which forms so prominent a



feature in the indication of fatal issue, depends, he holds, upon the obstructed pulmonary circulation, and indicates a recourse to depletive measures rather than to the early and free use of alcohol, which Dr. Todd advocated in all acute diseases,—a practice stigmatized by Dr. Hartshorne as extreme, unjustified, and often injurious. He does not, however, lay such stress upon the influence of the febrile state in contributing to cardiac asthenia as might have been expected. Nevertheless, we do not consider that Dr. Hartshorne's arguments are to be lightly set aside. The weak point of course lies in the possible unreliability of the data upon which they are based. Statistics, especially of clinical facts, are notoriously misleading, and it must be especially difficult to institute a just comparison in records which date from what may, without presumption, be styled the pre-scientific era. It would be difficult in the present day to bring about such a reversion to old practice as Dr. Hartshorne desires without a corresponding change in ideas concerning the nature of pneumonia, and the dangers that have to be averted by treatment.—*Therapeutic Gazette*.

#### Night Sweats.

PICROTOXIN is one of the best remedies for night sweats of consumption; one dose of  $\frac{1}{60}$  or  $\frac{1}{80}$  grain taken at night generally prevents perspiring for several nights.—*Ibid*.

### DISEASES OF THE URINARY ORGANS.

#### Semolina in Diabetes.

MR. W. STANLEY ARMITAGE writes in the *Lancet*: Some time ago I had the opportunity of watching a case of persistent glycosuria very closely, and found that at a time when the ingestion of a very small amount of toast, bread,

or other farinaceous food was sufficient to produce Fehling's test afterwards in the urine a large quantity of semolina pudding could be consumed without any such result. I was induced to try semolina after hearing of the method of its manufacture from an Edinburgh gentleman. As the quality of this food seems to me likely to vary, I ought to state that what was used in this case was obtained of an Edinburgh house, and was stated to be of the best. This I mention because, if carelessly prepared, no doubt much of the farinaceous element might be retained, though I am not aware that this ever is the case. Not having heard of semolina as a food in diabetes, I should much like to hear of any one who may have tried it, and would also request other medical men to see if it can be given in other and more pronounced cases of diabetes with a like good result. If such were the case, as it could be cooked in various forms, or baked as bread, it would add considerably to a class of food which is at present only far too limited.

#### Thirst in Diabetes.

THIRST in diabetes may be allayed, according to Duchenne, by the following:  $\mathcal{R}$ . Potas. phosph., 3 j; aquæ, f  $\bar{s}$  v. M. Dessertspoonful to a teaspoonful several times daily.—*Coll. and Clin. Record*.

#### Asystolism of Renal Origin.

IN all cases of asystolism of renal origin as a cardiac-vascular diuretic, caffeine must be used, and this sometimes acts with a promptitude superior to digitalis, has no cumulative effects, and is eliminated more rapidly and more surely. The pure caffeine may be given as by the following formula:  $\mathcal{R}$ .—Distilled water, 300 grams.; benzoate of soda; caffeine,  $\bar{a}\bar{a}$  3 grams.—M. Sig.—4 to 6 tablespoonfuls a day.

# CONSTITUTIONAL DISEASES.

## Therapeutics of Small Doses.

DR. M. W. SWARTS, in an article published in the *Indiana Medical Journal*, says: Minute doses are obtainable. Matter is endowed with great divisibility, and means usually exist to effect its separation into small particles. Water is often quite sufficient for this purpose, and the less soluble the substance the smaller are the parts made by the separation thus caused.

One minim of a saturated solution of iodine contains only one seven-thousandth of a grain of that element, and to a single minim of that solution may be added seventy drops of water, each one of which, after admixture, will contain enough iodine to respond to the starch-paste test in such volume as to appear blue to the unaided eye.

Extremely small particles of odorous substances are recognized by the sense of smell; and as an example of minute taste detection, we have only to remember that strychnia will impart a decidedly bitter taste to twenty thousand times its weight of water.

I would here apologize for naming even these few of the many examples of the divisibility of medicinal agents by various means, as they are so well known to all, were it not that only a few days since I heard a prominent physician say that "none but a quack or a fool will pretend that the giving of so small a dose as the one ten-thousandth of a grain is possible." If it can also be shown that very small doses are of value in the treatment of disease, it will become the man of science to ridicule them, notwithstanding that in the past they have kept company with false theories.

Nature is constantly giving us from

her laboratory substances representing minute, and even minute combined dosage. Each grain of opium contains no less than eleven known alkaloids, each one of which is complex in its chemical structure, together with various acids, gums, volatile oils, etc., which may or may not possess medicinal properties. The chemist never discards any substance because it holds a combination of minute radicals within the molecule, and the physician can ill afford to be less wise than he.

Man is in no sense an exception to the general law, and small forces affect him as certainly as he exists. Study, if you please, the sense of sight. Rays of light composed of waves shorter than heat waves—so short as to baffle the skill of the microscopist in their detention—falling upon the retina may so impress a part of it, the fovea centralis, a spot not larger than the head of a small pin, in such a manner that nerve elements (so delicate that thirteen hundred of them occupy that small space), may receive, and by nerve conduction convey, the impression of an image to the brain. May we not as well infer that a very small portion of a medicinal agent, upon coming in contact with the nerve cells of a centre, may so affect the mechanism of that centre as to be of value as a remedy? The influence of a magnet in polarizing a solid body, whereby each molecule within that body changes places with its fellow, is a familiar example of the potency of small forces; and it is likely no more necessary that a drug should be in actual contact with all the nerve cells of a centre, in order that its effect be transmitted to the mechanism controlled by that centre, than it is that a magnet should actually touch every molecule of a solid body to influence and polarize it. If the explosion of a single cell takes

place in direct consequence of the action of any drug, the relation of contiguous cells may be so changed thereby that general molecular action will supervene. From a practical knowledge we are led to believe that explosion of cells and molecular changes within the body are often better influenced by small than by large forces. A flood of light obscures the vision, and may even permanently destroy the sight; a less illumination serves a better purpose.

The clinical student knows full well that for a certain class of drugs very small doses are not inert, although non-toxic. One or two drops of a one per cent. solution of quinia certainly may affect an organism which responds so readily to the same amount of prussic acid. True, no one could reasonably expect any anti-malarial effect from so small a dose of that alkaloid; the antidotal value of any drug entirely depends upon the chemical relation existing between the volume of the poison and the remedy used, or between the physiological actions of each. There is, however, clinical evidence to show that one-fiftieth of a grain of sulphate of quinia, repeated every ten or fifteen minutes during the entire day, and for several days together, has cured obstinate cases of tinnitus aurium.

H. C. Wood tells us that cod-liver oil owes its value to its peculiar combination, and it is a combination of twenty-five known substances—many of which exist in a state of minute subdivision and in exceeding small amount. Iodine enters into it in the small ratio of one part to two thousand, and it contains only traces of other medicinal substances. I am aware that many practitioners believe that these remedies are not contained in the oil in sufficient amount to be of any value, and hence refuse to prescribe it, substituting there-

for cream or other fatty foods. The fact remains, however, as attested by a long clinical experience, that cod-liver oil, when given in properly selected cases, improves nutrition as no other known food or single drug can do. Mineral waters are rendered more valuable by the mere traces of the various medicinal substances they contain.

Tincture of aconite root, in repeated tenth drop doses, will tone up a weakened heart in many instances better than preparations of digitalis or other well known tonics; and the action of jaborandi in checking perspiration, when given in a similar manner, is now well known to the profession.

I consider it unnecessary to cite other facts in order to prove what, in a moment's reflection, you can not fail to admit, namely, that small doses are obtainable, and often of great value in the treatment of disease.

Of the general principles governing the therapeutics of small doses I will say, first, that there is no inverse proportion in medicine. The effect is always a positive result of the drug absorbed, and corresponds exactly to the size and frequency of repeated doses, except as modified by other coexisting conditions. The theories of Hahnemann were all false, and are now abandoned by his pretended followers. In their stead I will present four propositions, which, defective as they no doubt are, will, I trust, prove to be correct in principle, and the starting point for a better elucidation. In giving them I shall use the term *minimum dose*, as meaning the smallest amount that can be shown to produce any effect upon the human system, either in a diseased condition or in a state of health.

1. The so-called primary action of any drug is in fact the effect of the absorption of a minimum dose. In proof

of this we have only to consider that the absorption of a single large dose is more rapid than its elimination, so that its action is in a measure cumulative. The first effect (primary action) is that of the smallest amount absorbed, and that generally known as its physiological action is the effect of a much larger dose. As a matter of fact this minimum dose action can be shown to exist for most drugs, although when very large doses are taken the period of primary action may be so short as to escape observation. Our therapeutic text-books fail to notice it at all in many cases, and a more accurate and extended study must be made in order to determine exactly what that action is. Thus but few authors mention the temporary contraction of pupil which precedes the mydriasis of belladonna, or the dry hot flushing of the skin which antedates the sweating stage produced by a full dose of jaborandi.

In hypodermatic medication the full effect is reached so quickly that the primary action is seldom observed. Quite different is the prolonged stage of hyperesthesia and excitation caused by slow inhalations of ether. Every surgeon knows anesthesia is only reached by large doses, and therefore crowds the anesthetic as rapidly as safety will permit. By an extended observation of similar facts concerning different medicinal agents, we may hope to know more of cause and effect in curing disease.

2. The effect of a minimum dose (primary action) of any drug may be prolonged for a considerable time by the frequent repetition of the same minimum dose. This proposition involves only a simple addition and subtraction in its proof. The small dose, by being repeated often enough to make up the loss by elimination, continues to act in its original strength and that only.

3. The effect caused by a minimum dose is in most cases so varied from that produced by larger quantities of the same medicine as to entirely differ from it, and often to present symptoms directly opposite thereto. I will only here refer to drugs already mentioned as affording proof that the above proposition is substantially correct, and state further that even from our present knowledge many more might be added to the list.

4. That while minimum doses cannot take the places of those ordinarily prescribed in the treatment of disease, the converse is equally true; and the proper use of the former, as remedial and prophylactic agents, is in strict accord with science. This has also been already discussed in a general way, and it only remains for me to mention the probable manner in which a minimum dose of a drug or virus acts as an effective prophylactic measure. I hold that in every morbid process there is a beginning, a premonitory, or at least an invasive stage, and that in many essential diseases this first stage is absolutely necessary to the development of the affection. This being the case exceeding small doses of the specific poison producing the disease may, and probably do have sufficient power to begin the morbid process, but not having enough force to carry on the evil but a little way, become inert, the disease ends, and nature restores to health. The small dosage cuts out the first round of the ladder as it were, and the further ascent is impossible. In prophylactic vaccinations small amounts of the specific poison producing a disease, or of another virus having a similar action to it, are introduced into the system in time to anticipate the stage of invasion, and to take its place; and we have sufficient evidence to believe that at



least a few drugs are capable of developing conditions, so nearly resembling those produced by certain diseases, as to be in a similar manner and for the same reason prophylactic.

#### **Carbolic Acid in the Treatment of Enteric Fever.**

DR. F. SIDNEY GRIMSHAW (*Lancet*) publishes the results of his experience, extending over a period of seven years, with the use of carbolic acid in one hundred and sixteen cases of enteric fever. In this series he does not include cases of abortive typhoid or simple continued fever, although he believes that the medicine practically causes the fever to be cut short in the second week. The following is a general description of the management, diet, and carbolic treatment of enteric fever as employed by the author.

The patient is of course confined to bed, in a well ventilated room, if possible, and every effort is made to insure that no particle of solid food of any kind is administered by over anxious relatives. The diet is restricted to milk toast and water, barley water, and calf's foot jelly; new milk is always insisted upon as the main support, from a quart to three pints being given to an adult in the twenty-four hours. The carbolic acid is ordered in a mixture, of which this is the prescription: Take of carbolic acid (Calvert's extra pure for internal administration), twelve minims; tincture of iodine (B. P.), sixteen minims; tincture of orange peel, one dram and a half; simple syrup, three drams; water to eight ounces; the dose to be an ounce every four hours for the first fortnight, or until the urgent symptoms yield, when the same dose is administered three times a day. The good effect is manifested almost immediately. In two days the pulse slows and gains

in strength, the temperature falls, the tongue becomes moist, all diarrhea ceases, and the general condition of the patient is so much improved that, as a rule, in a week all anxiety is at an end, and the case progresses quietly towards recovery. It sometimes happens that a case is cut short by this treatment as suddenly as is a case of acute rheumatism by the exhibition of salicylate of sodium; but more generally the fever runs its course of thirty days before all danger of relapse is past, and he found it better to continue the medicine until the thermometer shows no rise of temperature for three or four clear days. If the pulse at any time rises above 120, the temperature 105°, or if sordes form on the lips or teeth, either champagne or brandy, and sometimes both, is given every two hours. This, however, is rarely necessary. Complete abstinence from any kind of solid food until all traces of fever have disappeared is insisted upon, and when the patient does return to his ordinary diet, the resumption of solids is a gradual progress from soup to boiled sole, chicken, mutton, and soft vegetables. Beef tea is carefully avoided so long as the temperature is abnormal, as it so frequently gives rise to troublesome diarrhea. The carbolic acid combination is usually taken without trouble or difficulty. A day or two after commencing with it patients always complain that everything they take tastes of the medicine; this is unavoidable, and need give no anxiety unless vomiting is excited, when it is a good plan to reduce the dose of carbolic acid and to add a small quantity of dilute nitro-hydrochloric acid. It is easy to detect the smell of carbolic acid in the breath and perspiration, but the author has rarely noticed carboloria. It must also be noted that not only does diarrhea cease, but the opposite condi-

tion—namely, obstinate constipation—is generally induced.

Aperients are decidedly to be avoided; and if the bowels do not act after some days, Dr. Grimshaw administers an enema of warm soap and water, or a small quantity of castor oil, emulsified in warm water with the yolk of an egg. If after convalescence there is trouble in getting a regular evacuation, he gives small doses of belladonna and salad oil. Dr. Grimshaw does not think that the remedy owes its antipyretic action to a direct influence on the muscular activity through stimulation of the vagus or cardiac ganglia, but he leans to the opinion that the presence of carbolic acid in the system arrests the production or growth of the already produced typhoid bacilli (a statement which the author acknowledges himself incompetent to prove), and that ulceration in the intestine is prevented, and ulcers already formed are induced to heal rapidly. In support of this latter statement he mentions the fact that healthy action is rapidly set up in old standing ulcers of the leg, when carbolic acid is administered internally in small doses. While there can be no doubt that the common sense method of treating typhoid fever by careful dieting and nursing is absolutely essential, there also can be no doubt that if carbolic acid (which, by the way, may be combined with iodine, as suggested by Dr. Rothe) acts in the manner claimed for it, it is better to secure comfort to the patient and assist him through the action of drugs on the by-road to convalescence. Stimulants, therefore, may be given if necessary, without hesitation, and to assist recovery when a tonic is needed, some cinchona preparations and the mineral acids may be prescribed. Dr. Grimshaw publishes an analysis of his cases, which are stated to have belonged to all classes of life, and the sur-

roundings of some of the poorer cases were not conducive to cleanliness or possibility of good sanitary arrangements. The result of every case but one was complete recovery, and the notes that he publishes indicate that some of them must have been of a very grave character.

#### Disinfection of Bedding and Clothing.

THE *N. Y. Medical Journal* says that in Paris the importance of destroying micro-organisms in every shape and wherever found seems ever increasing, as shown by the effort lately made in this direction by the directors of the great government loan offices called the *Mont-de-piété*. A large number of the poor classes pawn their bedding, and all sorts of mattresses, pillows and other articles are received at the loan offices and places in the storehouses, and, when we know that one of the number may be contaminated with the germs of some disease, and transmit it to the whole lot and cause an epidemic, as has been proved, the importance of disinfection of these goods will be recognized. It is only too common in all countries to see poor people after a long illness, compelled to pawn their goods; and our local law makers, together with those interested in hygiene, may see their way to purifying these goods or insisting that the pawn shop people do it, by the means used in Paris. This is by superheated steam. A large cylinder to put the goods into is mounted on wheels, looking for all the world like a steam boiler or a fire engine. This can be drawn by a horse wherever it is wanted, as was done lately during an epidemic of sweating sickness in the country, and the goods are placed in it for disinfection. During the few months that this plan has been working, some thousands of old mattresses,

pillows, covers, clothes of all sorts have been steamed, and it is beyond question that millions of the invisible and dangerous microbes have been destroyed, and that another great step has been taken toward the millennium of cleanliness, and therefore of health, in modern cities.—*Medical and Surgical Reporter*.

**Mixture of Iodine, Iron, Potash, Salicylic Acid.**

DR. J. B. JOHNSON (*Medical and Surgical Reporter*):

The following is the manner in which I form a combination of iodine, iron, potash, and salicylic acid:

No. 1.—℞. Tincture of iodine, f ʒ j; distilled water, f ʒ vj; chloride of potassium, ʒ j. Mix and dissolve.

No. 2.—℞. Distilled water, f ʒ ii; bicarbonate of soda, ʒ i; salicylic acid, ʒ ii; sol. of citrate of ammonia, f ʒ ix; tinct. chloride of iron, f ʒ ii; glycerine, f ʒ ii; distilled water, q. s. ad f ʒ vj. M.

This No. 2 mixture should be carefully made in an eight-ounce graduated glass measure; and, when prepared, should be added to formula No. 1. By adding formulas Nos. 1 and 2 together a beautiful wine colored compound solution is produced, which is by no means unpleasant to the taste. The mixture may be made more elegant by the addition of six fluid drams of elixir of orange, or twenty drops of oil of gaultheria. The dose is a tablespoonful after eating. I use this mixture, with great advantage, in all cases of a strumous and debilitated condition, requiring an alterative and tonic for their treatment. By adding fifteen grains of bromide of potassium to each dose, and its use commenced about ten days before the expected period, I have found this mixture to be the best I have ever used in the treatment of painful menstruation. I have found gleet to yield to the

use of this mixture more rapidly than to any other medicine, especially if the bromide of potassium is added in suitable doses. In cases of disorders of the stomach, attended with fermentation of the food, it acts well if taken a half-hour after each meal. It acts well in removing lithate of ammonia from the urine, and forms a most excellent tonic for children if given in teaspoonful doses every four hours.

**Diphtheritic Paralysis of the Pneumogastric.**

SUSS (*Rev. Mens. des Mal. de l'Enf.*) draws the following conclusions:

1. In the course of diphtheritic paralysis functional troubles are often observed in the sphere of the pneumogastric nerve.

2. The effect of these troubles is seen with reference to the heart's action in slowness, quickly followed by acceleration and smallness of the pulse. Præcordial pain and violent pain in the heart itself are usually associated with these conditions.

3. With reference to the respiratory passages, the symptoms are dyspnœa and sometimes great irregularity in inspiration and expiration. Less frequently patients suffer from Cheyne-Stokes respiration.

4. With respect to the digestive passages, there are very violent gastro-intestinal pains, and almost always vomiting of food or mucus.

5. Should all these symptoms be associated the disease would usually run a rapid and fatal course, probably within twenty-four hours.

6. If the pulmonary—and, still more, if the cardiac—symptoms are isolated, we may look for a cure in some cases, though it is not possible to say with what frequency.

7. All of these accidents occur most

frequently in the progress of a paralysis of the velum of the palate. The presence of this condition should compel a physician to give a very guarded prognosis.

8. The only treatment which has been of any benefit for this diseased condition is electricity, which may be applied over the cardiac region or over the posterior region of the chest.

9. It is absolutely certain that the heart-clots found *post-mortem* in the cases which have been studied by the author as the basis of this paper, have no bearing in explaining the phenomena which have been referred to.

10. The bulbar lesions which have been found in the course of these investigations could account for the pulmonary and cardiac disturbances only in isolated cases, and could give no information as to their curability.

11. Changes in the terminal branches of the pneumogastric—that is, in the fibres of the pulmonary, cardiac, and abdominal plexuses—can alone explain the peculiar phenomena which were observed in the study of the author's cases. The complete explanation must come from histological investigation, which will be supplementary to the author's clinical studies.—*Arch. of Pediatrics*.

#### **Oxalate of Cerium in Sea-Sickness and Other Disorders.**

DR. GARDNER, in an article in *Medical Record*, of June 2d, says:

Oxalate of cerium administered in ten, fifteen, or twenty-grain doses, every two or three hours, in about one tablespoonful of water, will cure more cases of sea-sickness than champagne, bromide of potassium, chloral, or any thing else he has ever tried. He states that it will cure, or materially relieve, seventy-five per cent. of all cases that come up for treatment.

He was induced to use this remedy, in these seemingly large doses, by a patient with gastritis following a debauch. He had given him pounded ice, chloral, bromide of potassium, creosote, hypodermics of morphine, mustard over the stomach, and all that the books prescribed or the ingenuity of the profession has devised; he then prescribed six powders of oxalate of cerium, five grains each, one powder to be taken every two hours in a tablespoonful of water. He went to see him six hours afterwards, and found his stomach quieted, and he was drinking some iced milk. He found he had taken the first powder (five grains) and had thrown it up, so he took the remaining five powders at one dose (twenty-five grains) and it quieted the stomach at once, and he got well immediately. Later he was called to see a man who had been shot in some little discussion over a game of cards; the ball—thirty-one calibre—entered on the right side of the abdomen, ranging upward, backward, and to the left, not wounding the bowel, but probably some branches of the solar plexus, and lodged somewhere in the muscles to the left of the spine; there was little or no hemorrhage (external), and when he recovered from the shock, under the use of ammonia, brandy, and digitalis, the most persistent symptom was the continuous and exhaustive vomiting, which, however, was controlled in about twenty hours by the use of ten grains of oxalate of cerium in a tablespoonful of water every three hours. The man made a speedy and good recovery, and is still driving a stage coach in Arizona.

He has used the oxalate in hundreds of cases of sick headache, and the morning sickness of pregnancy, and almost always with marked success; but it must be used in at least ten-grain doses



for adults, to do any good. He has also found it very useful in relieving the cough of phthisis in these doses. He has never seen any unpleasant effects from its administration in twenty-grain doses every three hours.

#### Lead Poisoning.

FOR a patient who had lead poisoning and presented the following symptoms: severe abdominal cramps, constipation, anæmia, constant headache, pale tongue showing marks of teeth, and had two convulsions, Professor Da Costa prescribed fifteen-grain doses of iodide of potassium and half-dram doses of syrup of iodide of iron. For the constipation a dram of compound licorice powder at night.—*Coll. & Clin. Record.*

#### Purpura Hæmorrhagica after a Mental Shock.

DR. ED. DE SMET, of Brussels, has recently had a case of a young woman of a highly nervous temperament who, in consequence of a severe fright, experienced an eruption of purpura hæmorrhagica, though she had never had any eruption of the kind before. Some four months subsequently, however, in consequence of a fall, a similar eruption made its appearance. The treatment was directed mainly to the nervous system, which was evidently very much affected. Dr. De Smet refers to M. Lenoir, of Lille, who has published cases of various skin diseases—eczema, psoriasis, herpes, pemphigus, and vitiligo—which have followed a mental shock.—*Lancet.*

#### Peculiar Effects from a Belladonna Plaster.

DR. J. E. HORN reports in the *Cincinnati Lancet Clinic*, the following results from a belladonna plaster which was applied for the relief of the soreness re-

sulting from a severe contusion: It was on about thirty hours, and because of the burning it produced, the patient removed it, and a vesicated spot the size of the plaster was visible. Two days later I was called in and given a good scolding. On looking at the arm I was actually frightened; the denuded surface was of a deep, angry red, and a scarlet hue extending from its edges in every direction. The arm was swollen all the skin would hold from shoulder to elbow, even extending to the fingers and hand, but not so great below the elbow. In fact, I had an extensive inflammation almost resembling erysipelas. The patient complained of dryness of the throat, and had double vision. The inflammation remained about one thing for three days, and then began to gradually subside. I have known belladonna plasters to irritate, but never saw any thing like this, even when a vesicant had been applied.

#### Lemon Juice in Epistaxis.

LEMON juice is recommended for epistaxis in the *Wiener Med. Bl.* Cleanse the nostrils with cold water, and immediately inject a small syringeful of lemon juice.—*Ibid.*

### DISEASES OF THE NERVOUS SYSTEM.

#### Treatment of Initiatory Symptoms of Meningitis.

A MOST intelligible and plausible exposition of the indications of beginning attacks of cerebro-spinal and spinal meningitis is set forth by Dr. J. McFADDEN GASTON, of Atlanta, Ga., in a paper published in the June number of the *American Lancet*.

The writer of the article calls attention to the importance of an early diagnosis of the trouble, for, he argues, if a diagnosis is not made at the very begin-

ning, and prompt measures adopted to meet the exigencies of the case, very few, if any, of the severe cases recover. The fundamental element in serious cases at the outset is evidently, he thinks, an overpowering impression upon the nerve centres; and those who have watched closely the concomitants of the early stage must have remarked a striking correspondence between the main features of this disease and those found in the pernicious fevers or those cases known as congestive chills. The heat of the head, coolness of extremities, heavy respiration and general discomfort are common to them.

He admits that it is one of the most difficult problems in clinical study to make a diagnosis in the early stages of the disease, but insists that after the inflammatory processes have become clearly outlined, it is then too late even to lessen the severity of the attack. No features of positive character exist that can be relied upon for diagnosis; even the prime symptom, and one that is pathognomonic when present—is often absent or comes on too late to serve any diagnostic purpose. However, he emphasizes the necessity of appreciating the general condition at an early period, and of acting at once in opposition to the general congestion, without waiting till it can be positively determined as to the precise direction or tendency of the disease. He thinks it is enough to know that there is present a most depressing and disintegrating congestion, that, if controlled at all, must be combated at once, and most vigorously.

In these cases the indications are to be met by measures calculated to restore the failing vital organs, and arouse the flagging nerve centres to action; he finds that this is best done by revulsive applications externally, and revolutionizing measures within. He disapproves

heartily of the plan of the administration of anodynes; "they clog the secretions and benumb the sensibilities," and while he has seen, in isolated instances, opiates afford at least seeming relief, his theory is that they, in most instances, only soothe the passage to the grave.

The writer of the paper has derived much satisfaction from the prompt administration of 15 grains of quinine and 5 grains of calomel, given every two hours, until four doses have been given. The local determination of blood to the head he has relieved by the immersion of the extremities in hot water, and the application of ice and cold water to the head. Other troublesome symptoms may be met as presented—the prime indication being always kept in view—the reduction of the congestion.

Two typical cases and their successful treatment are cited as corroborative of the correctness of the principle of action advised.

This principle is nothing more nor less than "an ounce of prevention is worth a pound of cure." Though long known and trite, there is perhaps no one thing that is engaging more universal attention among the profession than this question of how to ward off disease.—*Weekly Medical Review.*

#### Galvanization of the Thyroid in Epilepsy.

IN the *Rivista Sperimentale di Freniatria*, Dr. CELSO SIGHICELLI gives details of some cases of epilepsy which he treated by galvanizing the thyroid. He was induced to try this plan by reading Albertoni's description of convulsive attacks observed in dogs whose thyroid glands had been excised. These paroxysms were among the earliest symptoms of the characteristic cachexia following that operation, and bore a close resemblance to genuine epileptic fits. Dr. Sighicelli himself, moreover,

had in two cases of mental disease noticed signs which appeared to him to indicate that changes in the thyroid had a direct influence on cerebral nutrition, and might thus cause physical disturbance. He was, therefore, led to think that epilepsy might in certain cases be dependent on some abnormal condition of the thyroid. Having found electricity useful in hypertrophy of the gland, Dr. Sighicelli thought that it might possibly do some good in rectifying functional disorder. He accordingly applied a constant current of moderate intensity to each lobe of the thyroid alternately, at first for two or three, and afterwards for four or five, minutes at a time. The patients, seven in number, were all of the male sex, and in all of them the disease was of long standing. In three no visible effect whatever was produced; in the remaining four there was at the beginning of the treatment a sudden increase in the number of the attacks, but this was soon followed by a diminution in their frequency. Both the length and the severity of the paroxysms were greatly lessened, and when they did occur they were not accompanied by tonic spasms. There was almost entire disappearance of the phenomena which had previously preceded and followed each fit, and the patients were much improved in mind and disposition. In the two cases in which the success of the treatment was most marked, the amelioration began to show itself about a month after the first application.—*British Medical Journal*.

#### Nervous Diseases and Brass-Workers.

ROBERT M. SIMON, M. D., M. R. C. P., London, Assistant Physician to the Birmingham General Hospital, has written a very excellent and valuable thesis on brass-workers' diseases. His wide experiences make his observation valu-

able. The paper also shows much evidence of long and careful study of the whole literature of the subject. We quote the following from it:

The existence of nervous diseases, especially paralysis agitans, has been said to be common amongst them (the brass-workers), but I cannot find that a larger percentage of brass-workers than of the rest of the community suffer from diseases of the nervous system. It is common, however, amongst them to meet with complaints of disturbance of digestion. They suffer from dyspepsia, loss of appetite, gastro-intestinal catarrh, nausea, vomiting, metallic taste, thirst, colic, constipation and diarrhea. They are often nervous and hypochondriacal, complaining of headache, and muscular pains. There is nothing destructive about any of these disorders, except the obstinacy with which they resist the ordinary methods of treatment, and the readiness with which they yield to the administration of the iodide of potassium in combination of other drugs indicated by the various conditions of ill health.—*St. Louis Medical and Surgical Journal*.

#### Sick Headache.

A REMEDY for sick headache is highly recommended by Dr. J. WILMARTH in the *Boston Medical and Surgical Journal*, R. Podophyllin., gr.  $\frac{1}{2}$ ; caffein. citrat., gr. j; bismuth. subnitrat., gr. iijss. M. Sig.—One dose to be taken when the headache is approaching; to be repeated in two hours if necessary.

John Wyeth & Bro. have made these pills in compressed form.

#### Antipyrine in Rheumatic Chorea.

IT is very difficult for a practitioner to form an opinion as to the value of a new remedy. In many cases experience has proved that the eulogistic claims of introducers of such remedies have to be

greatly discounted before a correct estimate can be formed. At present, antipyrine is the fashion. But even now it is difficult to correctly estimate its value as an antiseptic, analgesic, antipyretic, and antirheumatic. In an article published in *La France Medicale*, Dr. B. Boussi confirms Legroux's statement as to the value of this drug in chorea, and calls further attention to this employment of antipyrine. Dr. Boussi states that he was called to see a child eight years of age, the son of a workman, whom he found in a state of high fever, complaining of pain in the throat and headache. The preceding day he had an eruption, which had, however, disappeared when seen by Dr. Boussi. The probable diagnosis of scarlatina was made, but a few days later the case developed into an acute articular rheumatism, accompanied with endocarditis. Thirty grains of salicylate of sodium were given daily, and cure resulted in eight or ten days. At this time, a pronounced desquamation confirmed the diagnosis of scarlatina. Five or six days later, after the cure of the rheumatism, the child commenced to suffer from disordered movements, which became more and more violent, until in ten days chorea of the gravest character was developed. Treatment was then commenced with thirty grains of antipyrine given in four doses daily in a little sugar and water. On the very next day, improvement was evident, sleep was possible without disturbance by choreic movements, and in two days, after the administration of sixty grains of antipyrine, the choreiform movements had almost entirely disappeared. In all, the treatment had lasted but eight days, during which time the chorea was practically cured, the patient having taken in all but little more than half an ounce of antipyrine. Dr. Boussi's results en-

courage an extended trial of antipyrine in chorea.—*Therapeutic Gazette.*

## DIGESTIVE TRACT.

### Treatment of Dysentery.

THE modern tendency is to strain evidence to prove the contagiousness of individual diseases and to magnify the importance of the rôle played by bacterial organisms. Dysentery has not escaped this medical fad, and there is a marked inclination to consider it as a specific constitutional affection. The intestinal diseases of camps, prisons, and other places where people are crowded together in swarms, are probably constitutional, due to the presence in the blood of a definite poison, but to our thinking ordinary sporadic dysentery, the result of excessive heat, conjoined with imprudence of diet, and often exposure to cold at night or other times, is as much a local disease as is pleuritis or sunburn. It ought, therefore, to be readily affected by local measures. In fact, if we examine the most effective methods of treatment, we find that they all have a direct immediate influence upon the affected parts. The saline depletes directly from the engorged portal circulation and stimulates the glandular apparatus of the colonic mucous membrane into activity; the mercurial labors with the hepatic viscus and also with the diseased mucous membrane; while the black, tarry discharges, which are the harbingers of ipecacuanhic convalescence, demonstrate the action of the Brazilian root upon the alimentary glandular apparatus.

The point we want to call the attention of our readers to is the *a priori* probability that direct medication of the colon will afford the most successful, as well as the simplest (because involving least the general system), means of curing acute colitis. In chronic colitis we



long ago practised the method with extraordinary success. Injections of a half-gallon of medicated water into the colon once or twice a day have been attended with phenomenal results. On the whole, the use of a dram of nitrate of silver has been the most satisfactory; but in some individual cases the persulphate of iron, nitric acid, and various other medicaments have produced the best results. It must be remembered that it is a local, not a constitutional, effect that is desired, and that the solution must be strong enough to be effectual. The enema is always returned inside of five minutes, and we have never known of any evidence of absorption of the drug.

It so happens that we rarely see cases of acute dysentery, and we therefore appeal to our readers to try upon an extended scale local treatment of the acute affection, and to report in our columns. We know that large injections of ice water often allay most markedly the tormina and tenesmus, but have had no experience with the direct applications of medicaments in acute colitis.

The materials used should conform with the results of experience with other mucous surfaces. Subnitrate of bismuth presses to the front as a claimant for trial, 1 or 2 drams at a dose. Nitrate of silver may act here as in angina. Hydrastin, and even acetate of lead, are to be thought of, and especially would we suggest trial of nitric acid, in the later stages. The field of therapeutics seems to us open and inviting. Will not some of our readers enter therein, and give to us the fruit of their labors?

The method of giving the enemata is important. The best plan is to bring the patient into such a position that the buttocks, resting upon a bed-pillow at the edge of the bed, are so elevated that the natural tendency of fluid entering

the rectum will be to run into the colon. The best form of syringe is the fountain syringe; if any of the forcing or pumping varieties are used, great gentleness must be practiced. An intestine which may angrily resist a rapid injection may often be readily persuaded to tolerate a large amount of fluid. The pipe which is introduced into the rectum should be large and flexible, and the effort should be to get it well up to the sigmoid flexure. In many cases of acute dysentery the lower part of the colon is probably alone affected, so that it is not always necessary to wash the upper portions of the gut; further, not rarely the injections should be practised every two or three hours, and it does not seem necessary for the doctor himself to administer them. Any intelligent nurse can be readily taught to give them, but the practitioner should thoroughly assure himself that the drugs are really applied to the mucous membrane of the colon. —*Therapeutic Gazette.*

#### Physical Examination of the Stomach in Cases of Gastric Disease.

DR. PHILIP COOMBS KNAPP (*Boston Medical and Surgical Journal*):

From the physical examination of the stomach we obtain information as to the following points: 1. The time of digestion; 2. the absorbent power of the stomach; 3. the motor activity of the stomach; 4. the chemical composition of the gastric juice; 5. the digestive powers of the gastric juice; 6. the size and position of the stomach.

1. The time of digestion, as I have said is not accurately known. It varies with the individual and with the character of the food taken. Leube has found, however, that normally, after a definite meal, all food has disappeared from the stomach at the end of seven hours. In a certain propor-

tion of cases it may disappear before that time, but if, after seven hours, food is found in the stomach, it shows that the process of digestion is delayed. To test this, Leube orders a test breakfast—soup, a piece of beefsteak, and a slice of white bread, with water. At the end of seven hours the stomach is washed out, using about three funnels full of water, and the wash water is examined for undigested fragments of food. In health the water should contain no such fragments.

2. The test of the absorbent powers of the stomach is a simple one. Penzoldt has found that by giving a small amount of iodide of potassium (0.2 grm. gr. iiij) in a gelatine capsule with a wineglassful of water at least three hours after a meal, or preferably on an empty stomach, the salt is absorbed, and can be detected in the saliva. The patient is directed to spit once a minute on a bit of starch paper, which is then touched with a drop of fuming nitric acid. In health, in from seven to fifteen minutes, there is found first a reddening and then a bluing of the paper.

3. The test of the motor activity of the stomach is equally simple. Ewald has lately found that salol is changed in an alkaline solution to salicylic acid. The acid gastric juice has no effect on it, but when it passes through the stomach, it is changed to salicylic acid by the alkaline pancreatic juice, absorbed and eliminated by the urine. The patient is given three to five grains of salol, and specimens of the urine obtained every fifteen minutes or half an hour. The addition of a drop of tincture ferri chloride to the urine, will, when it contains salicylic acid, give a deep, brownish red color. This color is said to be found in from half an hour to an hour after taking salol. If it does not appear until after that time, the motor activity

of the stomach is regarded as below normal. Later observers make the time rather longer.

4. The methods of obtaining the gastric juice, and of testing its chemical composition, have been the subject of much controversy, and the question is by no means settled yet. (The various methods and tests are here given in detail.)

(5) As I said before, the presence of a sufficient amount of pepsine is best, shown by testing the digestive power of the stomach. The test is very simple: A bit of egg albumen is put into a test tube containing 10 to 20 cc. of the juice, and kept at the temperature of the body. For this purpose, it is well always to take a piece of the same size. Sticker advises a disc 8 mm. across and  $1\frac{1}{2}$  mm. thick. I have used a bit measuring  $8 \times 4 \times 1$  mm. If the juice be undiluted, this should be digested in from two to three hours. With diluted juice, the time of course, will vary. If juice enough be obtained, it is well to perform control experiments at the same time by taking three test tubes and leaving one untouched, adding a drop of dilute hydrochloric acid to the second, and a flake of pepsine to the third.

6. The determination of the size and position of the stomach is of importance chiefly in cases of suspected dilatation, and various methods have been devised for this purpose. Palpation and percussion may furnish some slight aid, but, as a rule, other methods are necessary. Leube passed a stiff sound into the stomach, and endeavored to feel the point through the abdominal wall, but this procedure is not easy in stout patients, and is full of danger. Penzoldt had the patient take considerable water, and thus mapped out the lower border of the stomach by detecting the dullness. Schreiber tied a rubber balloon to the

end of the stomach tube, and thus inflated the stomach. Neubauer and Fleischer determined the level of the liquid in the stomach by connecting the stomach tube with a U tube outside the body. Rosenbach put water in the stomach, passed a tube into the water, and then, ausculting over the abdomen while he pumped air into the stomach, determined, by listening to the bubbles rising through the water, the upper level of the fluid. Kussmaul inflates the stomach by generating gas within. For this purpose, he gives 2 grm. of bicarbonate of soda and  $1\frac{1}{2}$  grm. of tartaric acid, and the size of the stomach when filled with the gas thus generated can readily be determined by palpation and percussion. In using this method, a stomach tube should be in readiness in case unpleasant symptoms should arise from over distension. Purgesz, taking the average distance from the incisors to the cardiac orifice, finds how much farther the sound can be pushed downwards—a method applicable only with the stiff sound, and as objectionable as Leube's method.

## DISEASES OF RESPIRATORY ORGANS.

### Galvano-Cautery Electrodes.

DR. BALDWIN GLEASON (*Medical and Surgical Reporter*): A few weeks ago, my attention was attracted by an article in the *Medical News*, by a Dakota physician, describing how a practical galvanic battery might be made at a cost of five dollars. Galvano-cautery knives that will be more useful than any to be had in the market can also be made at home at a trifling expense.

Select copper wire of sufficient diameter (No. 14 will do) so that it will not heat during the passage of the electric current, yet not so large as to take up too much room when the electrode is used through a nasal speculum. Cut

the wire into lengths of about six inches. Get a jeweler to drill a hole in one end of each length, for the reception of the platinum loop, and bend the other end so that, when two lengths are bound together with silk, they will fit into the handle of the electrode. Such copper wires, already drilled and bent, can be bought at surgical instrument stores in this city for fifty cents a pair. Holding a pair of such wires by their drilled ends, bind them firmly together by figure-of-eight turns of ordinary black button-hole silk, being careful that each turn lies smooth and tight on and between the wires before the next is put on. When the bent ends of the wires are reached, fasten the ends of the silk by a few half-hitches. The copper wires are now ready to receive the platinum tip. Buy, at any dental supply store, some platinum wire. This should not be too thick, or it will not heat up readily, not having sufficient resistance; nor too thin, as it will bend when you attempt to press it into the tissues.

No. 22 is the size generally used. Bend a piece one and a half inches long sharply upon itself, and insert the ends into the holes drilled in the copper wires. Clamp the copper firmly on the platinum with pliers, and your cautery-knife is made.

Most of the cautery-knives for sale have the platinum soldered to the copper. This is a disadvantage, as they easily break at that point, necessitating frequent re-soldering. Clamping the copper about the platinum does away with this disadvantage, while a few strokes with a file make a smooth joint.

A coat of shellac varnish may be put



upon the silk covering the copper wires, to improve the appearance of the electrode. Before attaching the platinum loop to the copper, it may be made to assume any desired shape by a few blows from a hammer. An ordinary tack hammer and flat-iron will answer the purpose of hammer and anvil, if one has nothing better at hand. A very convenient electrode for anterior hypertrophies in the nose is made by hammering one side of the bent platinum wire flat and leaving the other round. Hammering increases the resistance; so that the flat side of the wire will heat up more quickly than the round, and there is no danger of singeing the septum when such a knife is used. When it is desired to make a puncture rather than a cut, or cut only with the point of the knife, the platinum wire should be left nearly round, and only the very end or bent portion hammered. Then only the very end may be made red hot. Such electrodes are convenient for cauterizing the middle turbinated bones or hypertrophied tonsils.

Galvano-cautery knives, such as described, are used in the Nose and Throat Dispensary of the University Hospital and in the private practice of Dr. Carl Seiler, by whom they were devised, and also in my own. A physician can make them with platinum tips of many shapes and sizes, that will heat up at the exact part desired, and will find them more practical than those for sale, while their cost in money is almost nothing.

#### Treatment of Various Throat Affections.

A CORRESPONDENT of the *Canada Lancet* gives the following items of interest as to the treatment of certain laryngeal and pharyngeal affections, in the London Throat Hospital, by Dr. Wolfenden:

In cases of acute laryngitis in the adult, he prescribes a calomel purge, followed by the same drug in small and frequent doses combined with Dover's powder, at the same time administering the following if the pulse be full:  $\mathcal{R}$ .—Tinc. aconiti,  $\mathcal{M}\text{xv}$ ; aq.,  $\mathfrak{z}$  ij. Sig.—A teaspoonful to be given every fifteen minutes for four or six doses, then every half-hour for several doses, and finally every hour or two hours; the time between doses being lengthened as soon as the skin appears moist and the heart's action reduced. When the disease has advanced and secretion is being poured out, the following mild expectorant is prescribed:  $\mathcal{R}$ .—Ammon. carb., grs. v; tinc. scillæ,  $\mathcal{M}\text{x}$ ; tinc. camph. co.  $\mathcal{M}\text{xv}$ ; syr. zingib.,  $\mathfrak{z}$  j; infus. serpentar. ad.,  $\mathfrak{z}$  j. Every four hours. If the cough is very troublesome,  $\mathcal{M}\text{ij}$  or  $\mathcal{M}\text{ij}$  of liq. morph. hydrochlorat. are added to the above. Locally, he recommends cold compresses of ice or the Lieter coil.

In cases of subacute laryngitis he prescribes the following:  $\mathcal{R}$ .—Tinc. benzoin. co.,  $\mathfrak{z}$  iv. Sig.—A teaspoonful in a pint of hot water for each inhalation, night and morning. The patient is cautioned not to go out of doors for at least half an hour after using the inhalation. Trochisci kramerie are also ordered, each lozenge containing grs. ij or iij of the ext. of rhatany.

In some cases the following vapor is preferred:  $\mathcal{R}$ .—Olei eucalypti,  $\mathfrak{z}$  ij; magnes. carb. levis, grs. lx; aq. ad.,  $\mathfrak{z}$  iij. To be used in the same manner as the above.

In chronic laryngitis, in addition to any constitutional treatment required, he usually prescribes the following vapor:  $\mathcal{R}$ .—Olei pini sylvestris,  $\mathfrak{z}$  ij; magnes. carb. levis, grs. lx; aq. ad.,  $\mathfrak{z}$  iij. Sig.—A teaspoonful in a pint of hot water for each inhalation, night and morning, also troch. kramerie.



In tuberculous laryngitis he prescribes a vapor of benzoin and chloroform, as follows:  $\mathcal{R}$ .—Tinc. benzoin. co.,  $\mathfrak{z}$ j; chloroform,  $\mathfrak{M}$ iv, in a pint of hot water for each inhalation, and as a local application uses solutions of lactic acid, varying in strength from 20 per cent. to 60 per cent., and applied by means of a brush, twice a week.

In granular pharyngitis he finds the galvano-cautery the best treatment.

#### Chronic Rhinitis.

DR. SAJOURS teaches that in the treatment of simple chronic rhinitis cleanliness is of the utmost importance. The douche is not recommended now as much as formerly, except when the accumulation is great, which is rare. Ear affections are apt to follow the use of the douche. By all means have patient avoid swallowing, if you use the douche, as it is at this moment that the Eustachian tubes open. Breathe through the nostrils. The atomizer is the best apparatus for cleansing the nares. Liquids for this purpose should always be tepid and alkaline in reaction. The temperature of the liquid which is comfortable for the end of the elbow is about right. Never use a bland fluid to nares, as it is irritating, as much so as an acid solution; must be alkaline; may use bicarbonate of sodium, borax or common salt; one dram of any of the above to one pint of water is about the right proportion. Sometimes can get better results by combining the above.

Use the atomizer about three times a day; if inconvenient to use so often, use especially at night, as a great deal of damage is done by the long continued irritation. During the day use some protective, as cosmoline, applied to nares.

One dram of bromide of soda added to one pint of the spray often allays nervous irritability. Never use strong

solutions. Alum is the best astringent to add to the spray. *Pinus canadensis* is a good astringent for mucous membranes. Sometimes a vigorous alterative to nares is required, then use,  $\mathcal{R}$ . Hydrargyri chloridi mitis, gr. xv; bismuth, subcarb., talc.,  $\mathfrak{a}\mathfrak{a}$   $\mathfrak{z}$ j. M. Sig.—Use as a snuff.

Snuff one a day after washing nares; this is especially beneficial when there is an abundant discharge. If enlargement of the sinus manifests itself as a complication, severe treatment is required.

Before using a gargle take a full breath, fill the mouth with the liquid to be applied to the pharynx. Throw the head backward, and the fluid flows against the pharynx, and is partially applied to the palate by the air which gradually escapes from the lungs. If necessary for the fluid to reach posterior nares, the patient should lie down, take a mouthful of the fluid, draw out the tongue as far as possible with a handkerchief, and gargle while in that position. By throwing the head suddenly forward the liquid may be brought through the nose.

Under certain conditions, Dr. Sajours considers that cocaine for acute rhinitis is beneficial, say for two or three applications, but for constant use, this agent is exceedingly injurious and may cause paralysis. If the patient consults you early, order three powders, each containing:  $\mathcal{R}$ . Cocaine hydrochlorat., gr. 1-16; morphiae acetat., gr. 1-8; pulv. talc., gr. ij; bismuth subnit., gr. iv. Sig.—Ft. pulv. j. One every 3 hours.

After the three powders have been used, continue the same prescription, minus the cocaine. When the malady has reached the third or muco purulent stage, the treatment is more difficult, but we can hasten a cure by two-drop doses of tinc. belladon. every three hours, with the addition of a little quinine.

## CONSTITUTIONAL DISEASES.

### Lead and Lead Poisoning.

THE soluble lead salts when applied to raw or abraded surfaces combine with albumen and cover the part with an impenetrable coating, which serves to exclude the air and promote healing. They also constrict the blood vessels and act as sedatives, allaying inflammation. The lead salts are essentially un-irritating and never excite congestion.

Lead may be absorbed by the skin in sufficient quantity to produce the constitutional symptoms of the drug.

Lead salts act as astringents to the mucous membrane of the mouth, and are partly converted into albuminates. In the stomach the same process is continued, but large doses act as irritants and excite vomiting. Probably most of the drug is absorbed by the mucous membrane of the stomach in the form of the albuminate. Any portion which escapes absorption acts in the intestines as an astringent and is then converted into sulphide of lead, an insoluble and inert compound.

When lead is absorbed in small quantities for a length of time it produces a train of symptoms to which the term "plumbism" is applied.

From the manifold uses of this metal, lead poisoning is of common occurrence. The modes in which it may be introduced in the system are as follows:

1. *Occupations.*—(a) House painters often suffer from lead poisoning from want of care in washing the hands before taking food. In grinding the carbonate, which is largely used as a basis for paints, the fine particles are often inhaled in sufficient quantity to produce lead poisoning. Sleeping in freshly painted rooms has been known to produce it.

1888.—No. 10 a.

(b) Compositors often suffer from handling the type, type-metal containing lead.

(c) Bar men suffer from handling and cleaning pewter pots.

(d) Card players suffer from the lead glaze on cards, more especially if they moisten the fingers in the mouth while dealing.

2. *Articles of Drink.*—(a) Water.—Drinking water often becomes contaminated with the lead dissolved from lead pipes and the lining of cisterns. Pure water and water containing carbonic acid, carbonate of lime, or sulphate of lime, has little or no action on lead. Carbonic acid indeed acts as a protective by covering the lead with a fine insoluble film of the carbonate. Water containing much oxygen, nitrites, nitrates, chlorides, and especially organic matter acts quickly on lead. Even a very small quantity—as little as 1.50 gr. in a gallon may suffice to produce lead poisoning. Water containing 1.20 gr. to the gallon should be rejected as unsafe.

(b) Wine is sometimes sweetened with acetate of lead, and has produced lead poisoning. Bottles are sometimes cleaned with shot, and if these are accidentally left in the bottle the wine may become contaminated.

(c) Spirits.—Rum stored in leaden tanks on board ship has caused lead poisoning in sailors.

(d) Cider made in glazed earthenware vessels may prove injurious.

(e) Lemonade and soda water may produce lead poisoning when patent syphon tops are used.

(f) Beer is often contaminated by the lead pipes, and people who take the first glass in the morning are especially sufferers.

(g) Tea packed in lead is equally liable to produce lead poisoning.

3. *Articles of Food*.—(a) Farinaceous foods wrapped in lead are unsafe.

(b) Pickles, when the jars or bottles are capped with leaden tops, are very injurious.

(c) Loaf sugar sometimes contains lead from the moulds in which the sugar is set, being painted with white lead, a portion being mechanically taken up.

(d) Snuff.—Snuff may be adulterated with red lead, or may be unsafe from having been wrapped in leaden covers.

4. *Medicines*.—Lead given medicinally has been known to excite chronic lead poisoning, but it is of comparatively rare occurrence from this cause, and the acetate is often given in five grain doses three times a day for weeks, or even months, to check diarrhea or hemorrhage without producing bad effects.

5. *Articles of Apparel*.—(a) Lead in the lining of hats has produced symptoms of lead poisoning.

(b) Brussels lace is often whitened with preparation of lead.

6. *Hair Dyes and Cosmetics*.—(a) Hair dyes are a constant source of lead poisoning.

(b) Cosmetics containing lead have proved injurious to actors, actresses, and professional beauties.

In some cases of well-marked lead poisoning the source of introduction of the poison may not be discovered even after the most careful investigation.

*Symptoms*.—(a) Blue line on the gums.—The blue line is observed on the edge of the gums where they join the teeth. It is one of the first symptoms to appear, and the slowest to disappear. It is always most marked opposite the incisors. It is absent when there are no teeth, and is most marked in people who fail to clean their teeth. Sometimes it extends to the whole of the gums, and even to the contiguous portions of the cheek. It is produced by the sulphu-

retted hydrogen developed from the tartar of the teeth penetrating the gums and forming a black sulphide with the lead.

(b) Colic. Lead Colic. Painters' Colic.—This is a tearing pain, usually referred to the region of the umbilicus. The abdominal walls are retracted and rigid, and the pain is usually relieved by pressure, but not always. It is probably due to irregular contraction of the involuntary muscular tissue of the intestines. It is often accompanied by obstinate constipation and impairment of digestion.

(c) Cramps.—There are often cramps in the calves of the legs, sometimes in the penis and scrotum, or in women in the uterus. There may be pains in the joints, especially of the extremities, often simulating rheumatism and aggravated by cold and wet weather.

(d) Lead Paralysis or "Wrist Drop."—Usually of the extensors of the forearm, especially those muscles supplied by the posterior interosseus branch of the musculo-spiral nerve. The supinator longus, which is supplied by a branch of the musculo-spiral nerve before it divides into the posterior interosseus and the radial escapes. This affords a point of diagnosis between paralysis from lead poisoning and paralysis from disease of the musculo-spiral nerve. If this muscle is not paralyzed, it shows that the disease is not limited to the posterior interosseus nerve, and that the disease is probably not due to lead poisoning. The condition of the supinator longus is tested in this way: "Extend the paralyzed forearm on the table with the radius upward, then press down the wrist, and tell the patient to raise it from the table. The supinator longus, if not paralyzed, becomes hard, contracted, and stands out firmly." In lead paralysis the muscles of the ball of the

thumb waste, and in severe cases the deltoid and even the muscles of the neck and trunk are similarly affected. General paralysis may occur. As a rule, there is only loss of motor power, but there may be loss of sensation. The muscles post-mortem are found to be grayish-red in color, or whitish and tough, with considerable increase in the interstitial connective tissue. The origin of the disease is probably in the spinal cord, and is due to hyperæmia and proliferation of the neuroglia, with consequent contraction, causing degeneration of the cellular elements.

(e) Abortion. — Lead is a prolific cause of abortion, and women working in lead frequently suffer in this way. The father may cause abortion even when the woman is not a lead worker.

(f) Gout. — Lead in people predisposed to this disease may produce an attack by checking the elimination of the urates from the blood by the kidneys.

*Treatment of Chronic Lead Poisoning.*  
—(a) Blue pill. Saline draught.

(b) A mixture of sulphate of magnesia, sulphate of iron, dilute sulphuric acid, spirits of chloroform and peppermint water, three times a day for four days. Tincture of belladonna may be added if there is much colic.

(c) A course of iodide of potassium to eliminate the drug.

(d) Good diet, cod-liver oil, extract of malt, pancreatic emulsion, Parrish's chemical food, Fellows' syrup of hypophosphites.

(e) Warm baths, Turkish baths, shampooing, massage.

(f) Electricity, the faradic or continuous current being employed.

(g) Hypodermic injections of strychnine. — From a lecture delivered by Dr. William Murrell at the Westminster Hospital, London. — *Medical Register*.

# Liparin.

A CORRESPONDENT of the *Medical Register* makes the following statements concerning this new substitute for cod liver oil.

The new product known as liparin is said to be a good substitute for cod liver oil. It is proposed to make liparin cheaply by the direct addition of pure oleic or erucic acid to olive oil. It is thought that cholesterin which is contained in cod liver oil, is of importance, and that if vegetable oils be used in place of cod liver oil they should be made to contain cholesterin. Others look upon cholesterin as a most undesirable substance to be present in cod liver oil, or in any other substance used as a food or medicament, since it is the principal cause of gallstones. Professor Mering, who introduces liparin to medical notice, says there can be no doubt that in the first half of the present century cod liver oil was regarded as more efficacious than it is now supposed to be, and he attributes this to the fact that the article first used was the dark oil, which contained much more free acid; the steam-drawn oil now used being prepared as nearly as possible neutral. With regard to cholesterin, the same Professor thinks that it is a great mistake to credit this substance with any properties as a food. He remarks that the yolk of a hen's egg contains about as much cholesterin as can be obtained from three ounces of the best cod liver oil, namely about four English grains, and maintains his opinion that liparin is an excellent substitute for cod liver oil.

## Creasote Capsules.

CREASOTE put up in gelatin capsules soon destroys the container, and for this reason only a few should be put up at a time. GROH, of Vienna, after a number



of experiments, has found that, when the creasote is rubbed up with cacao powder, it will not only not attack either a gelatin container or a wafer, but is much better borne by the stomach. Capsules or wafers thus put up do not become soft, even after long standing, nor do they give forth that peculiar disagreeable odor of creasote, which is so offensive.—*National Druggist*.

#### **Pleurisy as a Predisposing Cause of Phthisis Pulmonalis.**

DR. B. F. WESTBROOK, in an article published recently in the *N. Y. Medical Journal*, says in conclusion:

1. That sero-fibrinous pleurisy apparently simple in origin and terminating in complete recovery so far as the local manifestations are concerned, may be followed after a few months by the development of phthisis pulmonalis.

2. That in all probability the pleurisy in these cases acts as a predisposing cause of the tuberculosis.

3. That primary sero-fibrinous pleurisy may result in fibroid phthisis, with the subsequent occurrence of tuberculosis pulmonum.

4. That fluid effusions remaining in the chest a long time may finally so interfere with the nutrition of the lungs or of the body at large as to render it liable to tubercular infection, either local or general.

5. That the rational deduction from these things is, that no case of pleurisy should be neglected; that after apparent recovery great care should be taken that the health of the patient is completely restored, before he is lost sight of by the physician. In the words of Sir Andrew Clark: "When we have a patient with basic fibrinous pleurisy, let us hold him fast, restrict his freedom, and treat him carefully until every remnant of it is gone." When all signs of

effusion have disappeared, care should be taken that the health of the patient is entirely restored before he is permitted to resume his former occupation, and if that occupation is one which involves any hygienic irregularities, he should be advised to change it. Where there is a previous history of phthisis in the family, still greater pains should be taken. The patient should remain away from business a long time, change his climate and entire mode of living if necessary, and should not be lost sight of by the physician for at least a year, even if his health is apparently entirely restored. When the patient has arrived at middle life, when the costal cartilages begin to lose their elasticity, and the general mobility of the thorax is apt to be somewhat diminished, effusions should not be allowed to remain in the cavity of the chest for more than two or three weeks. If the fluid accumulates after aspiration, this should be frequently repeated, at short intervals.

If cases are encountered at a late period of the disease, when it is impossible to secure re-expansion of the lung, I believe that the operation of resection of the ribs is worthy of a trial. When the fluid is absorbed, but there are still dullness and feeble respiratory murmur at the base, the patient should be kept for a long time on the use of the most efficient tonics and alteratives, with very liberal diet and plenty of out-door exercise. He should be instructed in the practice of respiratory gymnastics. When the health is sufficiently good, it is well even to inaugurate such exercises as the use of Indian clubs and dumbbells. Under judicious exercise of this kind, I have seen a very markedly contracted side expand till its dimensions were equal to those of its fellow, with great improvement in the condition of the patient. In more delicate subjects,

in whom it is frequently advisable to use some passive means for expanding the chest, the inhalation of compressed air, or the equivalent treatment by the pneumatic cabinet.

#### How to Administer Sulphonal.

THE *Chemist and Druggist*, in an article on sulphonal, states that the sparing solubility of sulphonal is one of the chief difficulties which have to be dealt with in dispensing the remedy. It is placed on the market in the form of small white crystals, which powder easily, but the resulting powder mixes badly with water. Were there not this objection, the best form of dispensing sulphonal would be as powder, for, the dose being comparatively large (15 to 60 grains), pills are out of the question. The patient might, however, take a powder dry on the tongue and wash it down with water, or, better, it may be taken in rice paper. In mixture, the drug requires the addition of something viscous to suspend it, otherwise the powder rises to the surface of the liquid as soon as agitation ceases. For a draught it advises the following formula as a suitable one: Sulphonal, gr. xxx; syrup, mucilage of acacia, āā f ʒ ii; distilled water, f ʒ i.

Powder the sulphonal, and mix the syrup with it in the mortar, then the mucilage diluted with three fluid drams of water. Wash out the mortar with the rest of the water. Dr. Lovegrove recommends compound tragacanth powder for suspending sulphonal, and it may be used if the viscosity is not objected to. The remedy makes a good pill with glycerine and tragacanth, but, as already stated, the dose renders this form of administration objectionable.

Sulphonal is practically tasteless, the extremely slight bitter after taste of the aqueous solution being observable only

to those who expect it, and not to the ordinary patient.

#### How to Give Medicines.

PROFESSOR LEWIN, in the *Berliner Klin. Woch.*, recommends that liquid medicines be given warm, being absorbed more rapidly and their action more energetic. They may be even given in small doses. For subcutaneous employment warming is likewise recommended. —*Coll. & Clin. Record.*

#### The Influence of Water on Obesity.

DR. LORENZEN, of Erlangen, has been discussing the influence of liquids on obesity. The first experiment was made on himself. For a period of nine years he drank a large quantity of Erlangen beer daily. During four years of the period the daily quantity consumed amounted to 10 litres, or 2 gallons 1½ pints, or about 22 lbs. weight; during the remainder of the period the quantity ranged from 5 to 7 litres in addition to 1 litre of wine. In this way he succeeded in increasing his body weight by 78 lbs., and the usual unpleasantnesses of obesity made their appearance. On shutting off the liquids his weight fell 14 lbs. in seven days. If however, more water was taken, but without alcohol, the weight increased again. Within five weeks he reduced himself to the extent of 23 lbs., the chest measurement diminished by 7 ctm., and that of the abdomen by 13 ctm., and the difficulties attending respiration disappeared. Similar experiments carried out on colleagues, who were likewise heavy men, had similar results. The disappearance of fat on withholding fluids he endeavors to explain on the hypothesis that the cells whose province it is to decompose albumen, when a large quantity of fluid is taken, now expend part of their energy in the combustion of fat. The

fat they consume is replaced by fat from the tissues.—*Medical Press.*

#### Cod-Liver Oil.

THE disagreeable taste of cod liver oil may be disguised in the following mixture:—Cod liver oil, p. 250; powdered sugar, p. 20; common salt, p. 10; rum, p. 60. Shake well together.

As a substitute for cod liver oil, especially in summer, the following has been recommended: Fresh butter, 5½ oz; common salt, 40 grains; bromide of potassium, 30 gr.; iodide potassium, one grain. To be spread on bread like butter.—*Coll & Clin Record.*

#### Treatment of Diphtheria.

WE extract the following from the foreign correspondence of the *Journal of the American Medical Association*:

At a recent meeting of the Société Médicale des Hôpitaux, Dr. GAUCHER made an important communication on the treatment of diphtheria. He stated that the false membranes being the source of infection, should be removed, their site being painted with a concentrated solution of carbolic acid and camphor, in alcohol, to which is added some olive or almond oil. The following is the formula of the solution he employs: Crystallized carbolic acid, 10 grams; camphor, 20 to 30 grams; alcohol, 10 grams; the whole to be dissolved, and to this is added an equal quantity of oil. The strength may be varied according to the severity of the malady. The essential point of the treatment consists in the topical application of a caustic solution which is at the same time antiseptic, after the removal of the membranes. The latter is effected by vigorous rubbing with some cotton wool wound round a slender piece of wood, which has to be repeated morning and evening. Some of

the members present observed that it was too difficult and painful an operation for the author to entertain any hope of its being adopted in practice.

#### The Length of Time Needed for Substances to Appear in the Blood After Their Administration by the Stomach or Subcutaneously.

MM. GREHANT and QUINQUAUD (*Comp. Rend. Hebdom. des Séances de la Soc. de Biol.*), in determining this question, used solutions of the iodide and salicylate of soda. The conclusions are, from their experiments on dogs, that the presence of salicylate of soda in the blood can be shown within thirty-one minutes after an injection of a six gram dose subcutaneously, or directly into the stomach. In the case of iodide of sodium a seven gram dose was needed to cause its appearance in the blood within the same length of time if it was given by the stomach; but when given subcutaneously and in about half the foregoing dose, it appeared in the blood after a lapse of eight minutes only. The authors also remark that after the injection of two grams of iodide of sodium into the stomach no trace of this salt could be found in the blood.—*N. Y. Med. Jour.*

#### Therapeutics of Diphtheria.

DR. A. JACOBI, of Philadelphia (*Medical and Surgical Reporter*):

The liquids which are to be injected into the nares must be warm and fairly mild. Solutions of chloride of sodium, two-thirds of one per cent.; saturated solutions of boric acid; one part of bichloride of mercury, 35 of chloride of sodium and 5000 of water, more or less; or lime water, or solutions of papayotin, will be found satisfactory. From the selection of these remedies it is at once apparent that the object in view is partly that of washing out and partly of disin-

fecting. I have not mentioned carbolic acid, which may be used in solutions of one per cent. or less. Its employment requires care, for much of the injected fluid is swallowed, and proves a danger to children of any age, but mostly to the young.

Most of the syringes I find in my rounds are abominations. The nozzle must be large, blunt and soft. After having recommended for many years the common hard rubber ear syringe, the sharp end of which was cut off, I now use always a short stout glass syringe, with soft rubber mounting in front.

When the children cannot, or must not be raised, I employ the same solutions from a spoon, or a plain Davidson atomizer. These applications can thus be made while the children are lying down, every hour, or very much oftener, without any or much annoyance. The nozzle must be large, so as to fit the nostril. A single spray on each side will generally suffice. I am in the habit of covering the common nozzle with a short piece of india-rubber tubing. For a day or two these injections of fluids or sprays must be made hourly. It is not cruel to wake the children out of their septic drowsiness—it is certain death not to do it.

Injections of the nose are oftener ordered than judiciously made. Hundreds of times have I been assured that they had been made regularly, hourly, for days in succession. Still there was a steady increase of glandular swelling and sepsis. I never believe a nurse to have made them regularly unless I have seen her doing it. They will turn up their syringe vertically, and not horizontally; the fluid will return through the same nostril. On the successful injecting or spraying of the nares hangs every life in a case of nasal diphtheria. I

have long learned to look upon a neglect to tell at every visit how to make an injection, as a dereliction of duty. This may appear a trifling way, but it is a safe one. The nurse must be made to tell you that at every injection the fluid returns through the other nostril, or through the mouth, or is swallowed.

The procedure is simple enough, and need not take more than half a minute for both nostrils. A towel is thrown over the child's chest up to the chin and the child gently raised in bed by the person who is to make the injection. This person sitting on the bed steadies the patient's head against her chest while somebody else holds the patient's hands. The syringe is introduced horizontally, by the person sitting behind the patient and gently emptied. No time must be lost in refilling and attending to the other side. When pain is complained of in the ears more gentleness is required, or the spray, or pouring from a spoon, or minim dropper even, has to take the place of the injection. Many sins are committed in even doing this simple thing.

What is the concentration in which antiseptic injections should be used? For twenty-five years and more, while employing irrigations and injections frequently, I had used quite weak solutions and felt assured of their efficacy. All at once (when the gospel of the bacteria was being preached) it was claimed that weak solutions were useless and a snare, because antiseptics, and particularly carbolic acid, would not destroy bacteria and bacteria-poisons except in such doses and concentrations as would necessarily destroy blood and tissues first. I felt dismayed, but still continued in my heretic ways, hoping that improved knowledge would finally harmonize theory and practice. So it happened. In the *American Journal of*



*the Medical Sciences*, for January, 1881, T. Mitchell Prudden proved that a solution of one-sixteenth of one per cent. of carbolic acid prevents the emigration of white blood corpuscles under circumstances otherwise favorable to inflammation; and Koch found that though bacteria are not easily killed, their growth is stopped by a solution of one part of carbolic acid in 850, and their activity by one in 1200. These effects are all that is required for practical purposes; thus the frequency of applications is justified by both necessity and safety.

Diphtheritic adenitis, the swelling of the cervical glands near the angles of the lower jaw, to which I have alluded as an ominous symptom, points to nasal and nasopharyngeal infection. The treatment consists in disinfection of the absorbing surfaces.

Direct local treatment of the glands, if not entirely useless, is, at all events, of minor importance and efficiency. Applications of one part of carbolic acid to ten of alcohol, irritate both surface and patient more than they can do good. Inunctions may do some good by friction (massage); inunctions with some absorbable material in them may do a little better. The common iodide of potassium ointment is useless; iodide of potassium in three or five parts of glycerine is more readily absorbed; the same in equal parts of water, with a little animal fat, and six or eight times its quantity of lanolin, gives an ointment which is readily absorbed. Iodine is found in the urine within a few hours. Iodoform may be utilized in the same way. Injections of iodoform in ether, which I suggested some time ago, are too painful. Mercurial inunctions, those of blue ointment, require too much time for any effect to take place. Oleates are too irritating locally; a lanolin oint-

ment would prove more satisfactory. After all, however, the readiest method of reducing the swelling of the glands and improving the prognosis accordingly, is that of cleansing and disinfecting the field of absorption. The rare cases of suppuration in these glands require incision and disinfection. They are as ominous as rare, however. There is but little pus, as a rule, but one or many local deposits of disintegrated gland cells and gangrenous connective tissue. The incisions must be extensive, the scoop and concentrated carbolic acid must be freely used. In these cases hemorrhages may occur, some of them very difficult to manage. I have seen some of them terminate fatally. In these carbolic acid must be avoided. Compression, actual cautery, and acupuncture, have rendered good service. Solutions of iron must be avoided, for the scurf formed is a shield, behind which deleterious absorption is going on constantly in such wounds, as it does in the uterus.

Besides sepsis, the great dangers in diphtheria are heart failure and strangulation. The latter has its own indication, to which I shall not allude to-day. Heart failure exhibits itself sometimes quite suddenly, but, as a rule, it is foreshadowed by a gradually increasing frequency, weakness of heart-beats and pulse, and the equal length of the intervals between the feeble systole and diastole, and diastole and systole.

This equality is always a dangerous symptom. Heart failure is due, besides the influences common to every disease and every fever, to myocardial changes. These may depend on the influence of septic decomposition of the blood, and the ill nutrition of the heart muscle depending thereon, or on the direct diphtheritic changes of the tissue, or both. These changes and dangers set in

sometimes, at a very early period. Thus whatever enfeebles must be avoided. Patients must be spared every unnecessary activity. They must remain in bed, without excitement of any kind, take their meals, and evacuate their bowels in a recumbent or semi-recumbent position; crying and worrying must be avoided; the room kept airy, and rather dark, so as to encourage sleep if the patient be restless. In no disease, except, perhaps, in pneumonia, have I seen more fatal results from sudden changes of posture, or from exertion. Unless absolute rest be enforced, neither physician or nurse has done his or her duty.

The threatened feebleness of the heart yields a positive therapeutical indication. In no disease is the danger greater on the side of the heart, in no disease is the indication for sustaining and strengthening the heart more positive from the very beginning. Digitalis, strophanthus, sparteine, besides camphor, alcohol and musk, must not be postponed until feebleness and collapse have set in. It is possible, or probable, that they will appear, and it is certain that a cardiac stimulant will do no harm. It is safe, and advisable to use them at an early date. This is especially necessary when antipyrine or antifebrine is given. A few grains of digitalis, in a palatable and digestible form, may, or must, be given daily. When a speedy effect is required, one or two doses of from two to four grains are not too large, and must be followed by smaller ones. When it is justly feared that the effect of digitalis may be too slow, I give, with or without the former, sulphate of sparteine. An infant a year old will take one-tenth of a grain four times a day, as a matter of precaution, and every hour or every two hours in an emergency.

Of at least the same importance as cardiac tonics are alcoholic stimulants. The advice to wait for positive symptoms of heart failure and collapse before the life saving apparatus is employed is bad. There are cases which get well without treatment, but we do not know beforehand which they will be. No alleged mild case is safe until it has recovered. When heart failure sets in—and often it will occur in apparently mild cases—our efforts are too often in vain. Thus alcoholic stimulants ought to be given early, and in large quantities, though amply diluted. There is no such thing as intoxication or danger from it in septic diseases. A few ounces daily may suffice, but I have seen ten ounces daily of brandy or whisky save children who had done badly with three and four.

Coffee is a good stimulant for the heart. Camphor may be employed to great advantage for the same purpose. From five to twenty-five grains may be given daily, as camphor water, or in a mucilaginous emulsion, which is easily taken. It does not upset the stomach as ammonium carbonate is liable to do. It may be employed subcutaneously when a rapid effect is aimed at, in five parts of oil, which is milder and more convenient than ether.

But the best internal stimulant, in urgent cases, is Siberian musk, in powders, or with mucilage. When required at all it ought to be given in sufficient doses, and at short intervals. When ten or fifteen grains administered to a child one or two years old will not accomplish, within three or four hours, a return of a more satisfactory heart's action, the prognosis is very bad.

Besides exhaustion at the height of the disease, we have paralysis during convalescence, or intense anæmia long after apparent recovery. This anæmia

may be general, or is local, and then mostly cerebral.

Diphtheritic paralysis, though of different anatomical and histological origin, yields in all cases a certain number of identical therapeutical indications. These are: The sustaining of the strength of the heart by digitalis and other cardiac tonics. A child of three years may take daily, for a month, three grains or its equivalent; for instance, one grain of the extract. This is an indication on which I cannot dwell too much. Many of the acute, and most of the chronic diseases of all ages, do very much better by adding to other medications a regular dose of a cardiac tonic. It is true that it is a good practice to follow the golden rule to prescribe simply, and, if possible, a single remedy only, but a better one is to prescribe efficiently. A prescription paper with a single line on it looks well, but a readily convalescent or well man looks better.

Besides, there are some more indications: Mild preparations of iron, provided the digestive organs are not interfered with. Strychnia or other preparations of nux vomica at all events. In ordinary cases a child of three years will take an eightieth of a grain three or four times a day. Local friction, massage of the throat, of the extremities and trunk, dry or with hot water, or oil, or water and alcohol, and the use of both the interrupted and continuous currents, according to the known rules, and the locality of the suffering parts, find their ready indications. The paralysis of the respiratory muscles is quite dangerous; the apnoea resulting from it may prove fatal in a short time. In such cases the electrical current, used for very short periods but very frequently, and hypodermic injections of sulphate of strychnia in

more than text-book doses, and frequently repeated, will render good service. I remember a case in which these and the occasional use of an interrupted current, and occasional artificial respiration by Silvester's method, persevered in for the better part of three days, proved effective.

*Chloride of Iron.*—I am still, as I was in my first paper on diphtheria, in 1860, an advocate of the internal use of chloride of iron. Its mode of administration I have not changed much these twenty years. In a public lecture delivered before a New York audience by an European authority, whose name has lately appeared a little more prominently in newspapers than an American physician would wish, I was highly praised for giving a few drops of the tincture of the chloride of iron a few times a day. This eulogy I have always tried not to deserve, for the efficient method of its administration is not that. The chloride of iron is an astringent and antiseptic. Its contact with the diseased surface is as important as is its general effect; therefore it must be given frequently, in hourly or half-hourly doses, even every twenty or fifteen minutes. An infant of a year may take three or four grams a day, a child of three or five years, eight or twelve. It must be mixed with water to such an extent that the dose is half a teaspoonful or a teaspoonful; a dram in four ounces allows half a teaspoonful every twenty minutes. No water must be drunk after the medicine. As a rule, it is well tolerated. There are some, however, who will not bear it well. Vomiting or diarrhea is a contraindication to persevering in its use, for nothing must be allowed to occur which reduces strength and vigor. A good adjuvant is glycerine, better than syrups. From ten to fifteen per cent. of the

mixture may consist of it. Now and then, but rarely, it is not well tolerated either. When diarrhea sets in glycerine must be discontinued. Still these cases are rare; indeed, the stomach bears glycerine very much better than the rectum. In the latter, the presence of a small dose of glycerine is known sometimes to produce large evacuations, a result appropriated and utilized by an advertising nostrum monger.

## DISEASES OF THE NERVOUS SYSTEM.

### Pathogeny of Paralysis Agitans.

MANY arguments in favor of the view that paralysis agitans is really an organic disease of the spinal cord, are adduced by M. TEISSIER in the *Lyon Médical*. Jaccoud maintained that the muscular tone derived from the nervous energy of the spinal cord was lost, whilst Grasset held a hypothesis, not easily understood, based on the assumption of a want of power of sustaining a fixed position. A diffuse sclerosis of the lateral columns has been found, in some cases extending up to the vesticular column of Clarke and into the inter-medio-lateral tract. One case of spinal pachymeningitis during life showed characteristic tremors, retropulsion, and psychic troubles. In this instance, fibrous invasions from the thickened meninges were detected here and there in the white columns of the spinal cord. The main conclusion to be drawn, if M. Teissier's observations are exact, seems to be that paralysis agitans is, like chorea, a symptom and not a disease.

### The Tongue as a Guide to Diagnosis of Lesions of Intra-cranial Vessels.

EXAMINATION of the tongue is usually confined to the upper surface, little or no attention being given to the under surface. Dr. GILLOT asserts that

this portion of the tongue often presents certain points of diagnostic significance to reward the physician for his trouble in inspecting it. It is the condition of the superficial ranine vessels, especially, which is to be studied in this inspection. In a young and healthy person the veins alone are prominent beneath the mucous membrane, but with the advance of age, or as a result of disease, these veins become dilated, tortuous, or varicose, and the venules and capillaries become visible. In many cases little dilatations, like grains of sand, may be seen on the smaller vessels. These may be so minute as to be detected only with the aid of a lens, but are ordinarily readily visible to the naked eye as little projections the size of millet seeds. They may be few and disseminated, or may be very numerous and grouped together like a bunch of grapes. They are ordinarily situated a short distance from the tip of the tongue, on either side of the median line, or near the root of the organ. Their color varies, according to their size and the condition of the general circulation, from a bright red to purple or almost black.

These projections, Dr. Gillot states, are true miliary aneurisms caused by a thinning of the walls of the vessel, and are analogous to the miliary aneurisms occurring on the cerebral vessels. But more than this, they are diagnostic of this condition in the vessels of the brain, or at least should raise a grave suspicion of its existence. The circulation of the tongue has very close relations with that within the cranium, the same influences which act upon one acting also upon the other, and the inspection of the under surface of the tongue furnishes as valuable an indication of the state of the cerebral circulation as does an examination of the fundus of the eye, while it can be readily made without instru-



ments and does not require of the physician any special training, as does the use of the ophthalmoscope.

The primary cause of these miliary aneurisms, of the tongue as well as of the brain, Dr. Gillot refers to the so-called arthritic diathesis, and he says that he has never seen these minute dilatations of the lingual vessels in any but those suffering from arthritis, a term used to denote the diathesis expressed by the manifestations of gout, rheumatism, cardiac affections, etc.

The author urges a careful inspection of the under surface of the tongue in the aged and in those presenting any lithæmic symptoms, and believes that the physician may, thereby, often derive much assistance in the diagnosis of disturbances of the cerebral circulation, and may also obtain very valuable indications for treatment, being often enabled to avert, or at least postpone, grave cerebral disorders by timely and judicious treatment.—*Medical Record*.

#### Treatment in Neurasthenia.

IN a paper on neurasthenia, read before the Ontario Medical Association (*Canadian Practitioner*), Dr. D. CLARK, Medical Superintendent of the Asylum for the Insane, Toronto, makes some suggestions as to treatment, of which the following is a summary: Rest and cheerfulness for the anæmic. Outdoor exercise and work for the plethoric and sedative. Fresh air, substantial food, and absolute cleanliness for both classes, as a rule. No chloral, no opium, no alcohol; in short, no artificial stimulant, soporific, nor narcotic of any kind. Three hours of natural sleep or rest have in them, he says, more recuperative power than nine hours of stupor or drugged quietude. Such short cuts to rest, he thinks, only murder natural sleep and strangle the heroic efforts of

nature to come back to normal conditions. Even when these stilts are used, it must be after serious and thorough deliberation. Any employment which will have a tendency to divert the mind away from self-contemplation and so secure relief by the law of substitution.

He finds that the best remedies are the arsenites, cod-liver oil, phosphide of zinc, pyrophosphate of iron, nuxvomica, bromides with caffeine, zinc oxide with ergot, and such like. These tonics and calmatives, he says, assist nature to seek again the old paths. He advises the young members of the profession, if sedatives, or narcotics or stimulants are administered, to mask them as much as possible; for he says he has been told by dozens of victims to the alcohol, chloral or opium habit, that the first knowledge they had of the pleasurable potency of such drugs was received from the family physician. Dr. Clark's method has been to use some menstruum which will disguise the taste and smell of these drugs and to maintain a stubborn silence as to their presence in his prescriptions.

#### Neuralgia.

As a pomade for neuralgia the following has been recommended:—R. Menthol, gr. xv; cocaine, gr. v; chloral hydrat., gr. iij; vaseline, 3 j. M.—*Coll. & Clin. Record*.

#### The Treatment of Sleeplessness.

RECIPES for sleeplessness continue to present themselves. A correspondent of the *Lancet* has found the following to be an effectual remedy in his own case: After taking a deep inspiration he holds his breath till discomfort is felt, then repeats the process a second and a third time. As a rule, this is enough to procure sleep. A slight degree of asphyxia is thus relied on as a soporific agent, but the theoretical correctness of

this method is somewhat open to question. Certainly there is proof to show that the daily expenditure of oxygen is most active during the waking period, and that nightly sleep appears to coincide with a period of deficient tissue oxygenation. It is at least as probable, however, that other influences are associated with the production and timely recurrence of sleep besides that just referred to. This plan, moreover, however effectual and beneficial in the case of its author, is not without its disadvantages. The tendency of deficient oxygenation is to increase blood pressure and to slow the heart's action. With a normal organ, as an occasional occurrence this might be of much consequence. If, however, the impeded heart should also be enfeebled by disease, the experiment might be repeated once too often. Another combatant in the struggle with insomnia lays down a series of rules, for the most part very sensible, to which he pins his faith. Considering that the chief causes of sleeplessness are mental worry and the want of a due amount of exercise and fresh air, he advises his fellow sufferers to observe the ordinary rules of hygiene relating to such matters, to take food and drink in moderation, and to avoid of an evening the use of tea, coffee, and tobacco. In dealing with severe nervous irritation from mental or physical work, he has found a daily rest an almost essential prelude to sleep at night. Thus, he treats of sleeplessness rather as a tendency requiring constitutional remedies than a symptom of mere brain excitation. There is much to be said for his theory and means of treatment.

#### Muriate of Ammonia in Myalgia.

IN a letter to the *St. Louis Medical and Surg. Jour.*, Dr. WM. HENRY, of Harmon, Ills., calls attention to this old but

neglected mode of treatment. He says: I have for a number of years used nothing but hydrochlorate of ammonia in these cases with almost uniform success. I give it in large doses—20 to 30 grains three or four times a day. The remedy should be kept up for some time after the pain has ceased.

#### DIGESTIVE TRACT.

##### Lactic Acid in the Treatment of Tubercular Diarrhea.

MM. SÉZARY and AUNE have reported (*Lyon Méd.*) some noteworthy results with lactic acid in the treatment of diarrhea in tubercular patients. The action of the acid in local manifestations of tuberculosis has already been noted many times. Laryngologists have for many years been curing tubercular ulcerations of the larynx with concentrated solutions; and recently Blanc, chief of clinic of Leon Tripier, has observed the remarkable effects produced by it in tubercular ulcers of the tongue, when used in concentrated solutions. Struck by these facts, the authors decided to try and discover whether it might not be the long-sought-for specific for tubercular ulceration of the intestine—the parasiticide of the bacillus of Koch. The lactic acid was administered as follows: Commencing with a dose of 2 grams in a solution of a 120 grams, if that was found to be insufficient it was rapidly increased to 6 or 8 grams, taken in teaspoonful doses during the twenty-four hours. With this dose the patients complained often of gastric disturbance and setting of the teeth on edge, which disappeared by adding one gram of chlorodyne to the solution. After the second day the passages diminished in frequency and they became normal about the fourth day, and remained so. Nine very successful cases are reported.

**A Valuable Remedy for Chronic Diarrhea.**

MANY years ago I suffered severely from that trouble; I considered it incurable. Being in Paris, one of the best physicians there assured me it could be cured by a diet of racahout, and it was.

Afterward here I found one could not get the acorn meal that forms the active part, but knowing that its usefulness must depend on the tannin it contains, I tried substituting it as follows:

Powdered chocolate, pure,  $\frac{1}{2}$  lb.; rice flour,  $\frac{1}{2}$  lb.; powdered sugar,  $\frac{1}{2}$  lb.; tannin,  $\frac{1}{4}$  oz. (120 grs.)

The tannin, or the rest, separately, have little effect. Together they restore the tone of the alimentary canal and nourish as well as cure.

One thing is essential, that is, long cooking—not less than half an hour. If simply boiled a few minutes, the harsh taste of the tannin is very strong; with a good half hour's cooking, it disappears wholly—it is impossible to distinguish the medicine from ordinary broma. I think this has something to do with its curative powers and with the ease of digestion by the most irritable stomach. The remedy is too valuable not to be more widely known.

The amount to be taken is a teacupful morning and evening at meals.—*Medical News.*

**DISEASES OF RESPIRATORY ORGANS.****Treatment of Asthma.**

THE treatment of asthma is divided into treating the paroxysm, and treatment to prevent a recurrence. In treating asthma it is best always to use single remedies. It would take more time than we have at our disposal to mention even all the drugs which have been found beneficial. To relieve an asthmatic paroxysm, tobacco is one of the

best. It is of course very likely that a patient using tobacco for this purpose may acquire a fondness for the weed, but if it is going to be useful in future attacks, he must not use it as a social comfort, or it will lose its effect. At times a few whiffs of a cigar will stop the paroxysm, but as a rule the smoking must be continued till constitutional effects are manifested by a depressed circulation, cold perspiration and nausea. If the heart is weak this remedy must not be employed; smoking datura tatula is often very useful. Stramonium—smoking the leaves is also a common remedy. They may be smoked alone in a pipe or in cigarettes, or the leaves may be mixed with tobacco and made into cigars. In the same way the leaves of hyosciamus and belladonna have been found valuable.

The most common remedy is saltpetre paper. A saturated solution of nitrate of potassium is prepared, and in this is soaked blotting paper, which is then dried and cut into strips; when lighted, those strips burn slowly, and the patient inhales the smoke. Some advise a very small proportion of arsenic to be added to the saltpetre solution. Cocoa leaves are also advised to be smoked, mixed with ordinary tobacco.

The latest remedy is pyridene. This is used in quantities of a dram, and vaporized on a hot plate in a closed room. It is said to be very useful. Emetics are sometimes found useful, and perhaps the best is tartar emetic. Nitrite of amyl is often very serviceable in relieving a paroxysm. Nitro-glycerine  $\text{gt. i}$  of a  $\text{r}$  per ct. sol. is recommended also. Sudden fright has been known to instantly cure a paroxysm. Chloral hydrate, where the heart is not diseased or weak, in doses of 15 to 20 grs. is very good;  $\frac{1}{4}$  gr. of morphia combined with  $\frac{1}{200}$  of a gr. of sulphate of atropia will,

as a rule, cut short an attack. If frequently used there is the danger of the morphia habit, which is much worse than an attack of asthma, bad as it may be; stimulants are bad, and never should be used.

To prevent the return of the disease, there are several useful remedies, and first on the list stands arsenic, which must be continued for several months. Ammonium bromide is well spoken of. The bromides are eliminated by the bronchial mucous membrane, and are believed to exert a local anæsthetic effect. Potas. bromid. is also used. *Cimicifuga*, a plant indigenous to this country, is a remedy not so much used as I think it deserves to be. Quinine may be used both during a paroxysm and afterwards. If an attack is expected, say about one in the morning, a full dose of quinine at 9 o'clock the preceding evening will sometimes prevent its coming on, or it may only modify the severity of the attack. It sometimes fails to have any effect. Another remedy introduced during the last few years is *grindelia robusta*. It is highly spoken of, and may be given in doses of  $\frac{1}{2}$  a dram of fld. ext. several times a day.

In some patients who are sufferers from hay asthma or hay fever, there has been recently found hypertrophy of certain portions of the schneiderian membrane. These hypertrophied points are believed to be potent parts of irritation, and their destruction, by means of the galvano-cautery, has been followed by excellent results. This is a very recent advance on the pathology of this disease. Still more recently it has been suggested that possibly, in ordinary asthma, these points of hypertrophy may also exist in the tracheal and bronchial mucous membrane. These points cannot of course be reached by the

cautery, but it is suggested that this condition can be remedied by the persistent inhalation for months of the vapor of iodine and carbolic acid. It is theoretically a good practice. I have seen hypertrophied tonsils greatly improved by this inhalation.

Attention to diet is important. Indigestible articles must be avoided, and asthmatics must absolutely avoid eating before bedtime.—*Canada Med. Record*.

#### Cocaine in Bronchial Affections.

IN the correspondence of the *Journal American Medical Association*, the following interesting note is found :

Dr. PERRON, of Bordeaux, in a communication to the Society on the advantages of sprays of solutions of cocaine in various bronchial affections. Under the influence of a 2 per cent. solution of cocaine which is used in the form of a spray, the most violent fits of coughing are arrested in a few minutes. Phthisical subjects who are troubled with coughing and consequent insomnia at night, experience immediate and durable relief from this treatment. By this means opiates which are always more or less injurious after a time, are avoided. In acute bronchitis the action of cocaine is as advantageous. A notable modification takes place in the state of the pulmonary mucous membrane, and owing to the insensibility thus produced, the inflammation and the secretion are diminished. About ten or twelve inhalations, practiced by means of the spray producer placed near the mouth wide open, suffice to bring about prompt and satisfactory results.

#### Vigier's Coryza Powder.

THIS remedy, which is greatly prized and often prescribed by French physicians, has the following formula, as given by M. VIGIER himself (*Gazette Hebdom. de Méd. et Chirurg.*) :



Finely powdered starch, boracic acid, tincture of Siam benzoin, of each equal parts. To be used as a snuff, frequently and plentifully. We would remark here that powdered gum benzoin should not be used in lieu of the tincture, as is frequently done by American pharmacists in preparing snuff powders. When the gum is used, the resulting powder is tenacious, packs easily, and is difficult to draw into the nostrils. The same may be said of camphor. It is far better to use the tincture and allow the alcohol to evaporate, as in this manner a granular powder is obtained which has not the vice referred to.—*Nat. Druggist*.

#### DISEASES OF CIRCULATORY ORGANS.

##### Caffeine as a Cardiac Stimulant.

In diseases of the lung (*Berliner klin Wochenschrift*), Dr. TE GEMPT states that the drug is indicated in the course of acute fibrinous pneumonia as soon as there is evidence of heart failure, lowering of the arterial pressure, and an abnormal frequency or an irregularity of the pulse. The administration of the drug should be begun, if possible, before the appearance of symptoms of collapse; while, in a sudden occurrence of the latter, caffeine is all the more urgently needed and its use is often of service. In conditions of cardiac weakness, failure, and atrophy, and also in drunkards and old men, its use from the very beginning is advised. When rightly used and in the proper doses, it effects a diminution in the frequency of the pulse and respiration, an increase in the arterial pressure, a lowering of the temperature, and a favorable influence upon the general feeling of the patient. Stimulants are not to be withheld, but are to be used, when indicated, along with the caffeine. The action of caffeine is rapid, and can

be made more rapid and certain in threatening cases by giving it hypodermically. Its use may be continued for a short time after the subsidence of the pyrexia. Caffeine is indicated in conditions of atelectasis or hypostasis of the lungs; and its use in emphysema and asthma is analogous to its use in diseases of the heart.

##### Laxatives in the Treatment of Fatty Heart.

KIRSCH, in the *Internat. Klin. Rundschau*, prescribes a useful purgative for this condition, as follows:—*Rx.* Pulv. rad. rhei.; ext. alœs; ext. jalap., āā gr. 30; pil. mass. q. s.; ft. pil. thirty in num. Sig.—One pill at evening.

In anæmic patients:—*Ferri sulph. pur.*, gr. 45; *extr. alœs*, gr. 30; *pil. mass.* q. s.; *ft. pil. thirty* in num. Sig.—One pill morning and night.

When compensation is becoming exhausted digitalis may be combined with laxatives as follows:—*Rx.* Pulv. rad. rhei.; ext. alœs av.; pulv. fol. digit., āā gr. 30; *pil. mass.* q. s.; *ft. pil. thirty*. Sig.—One every 3 hours.—*Med. News*.

##### \*Cactus Grandiflorus in Heart Disease.

The *Chemist and Druggist* says that this remedy for heart disease was the subject of a recent paper by Dr. ORLANDO JONES, of Harrogate. *Cactus grandiflorus* is a native of Jamaica and Vera Cruz. Dr. Jones gave notes of cases in which the remedy had been used, and the results appeared to show that this remedy may be used as a substitute for digitalis when that remedy is inapplicable owing to its over-stimulating action, and in cases of feeble heart. The final stage of the action of the drug is that it strengthens the heart, and consequently improves the circulation, so that the result of the exhibition of cactus is the reverse of that seen in digitalis.—*Medical & Surgical Reporter*.

**CONSTITUTIONAL DISEASES.**

**Hyperpyrexia in Typhoid Fever.**

DR. J. M. MUSELLI, published in the *Journal de Médecine de Bordeaux*, some interesting clinical observations on this question, of which we report the following conclusions: 1. Hyperpyrexia is a danger in typhoid fever, from its effect upon the intestines, the heart, and the entire organism. 2. The hydropathic treatment, when employed by cold baths, after the method of Brand, exposes the patient to such grave dangers as sudden death, internal hemorrhages and capillary bronchitis. There is a very slight action on the temperature when it is used in the form of tepid baths, and warm and cold sponging. 3. Sulphate of quinine loses very quickly its anti-thermic action, since in a few days the temperature, lowered for a short time, regains its former height. Its action is not always certain, even in enormous doses. Also, the sulphate of quinine, given in large doses, may cause such accidents as trouble with the hearing, and headache, which disturb the patient and necessitate the suspension of the remedy. 4. Salicylic acid has an uncertain action upon the temperature, besides, it increases the danger of intestinal hemorrhages and epistaxis. 5. Antipyrine lowers the temperature with mathematical precision. It causes a typhoid fever to run its course with a moderate temperature, without exposing the organism to any grave dangers. It is, in the opinion of the author, the best antipyretic with which he is familiar.—*Rev. de Thér—Med. World.*

[We fully indorse the statement of Dr. Muselli, in regard to the value of antipyrine in hyperpyrexia, but have never found large doses of this drug necessary in any case. Our plan has been to order five grain doses in the

form of a powder, with a little sugar of milk, to be given every hour until there is marked diaphoresis or the temperature has been sufficiently reduced. We have in some cases employed at the same time, with marked benefit, cloths rung out of ice water applied to the abdomen.]

**Decoction of Lemon in Intermittent Fever.**

DR. R. A. LANCASTER, of Gainesville, Fla., writes:

For two years or more I have been using the decoction of lemon, as recommended by Dr. Crudelli for the prevention and the cure of intermittent fever. In many cases it acts like a charm, even where quinine and arsenic have failed to prevent frequent returns of the chills. It is especially serviceable in that class of patients that we sometimes meet with, who cannot take quinine without experiencing such unpleasant symptoms as urticaria, nausea, headache, nervousness, etc.

In my experience the lemon decoction has proved much more efficacious than arsenic in preventing the recurrence of the chills after they have been broken with quinine, and in one case, at least, it promptly relieved the chills where large doses (twenty grains per day) of quinine had failed to do so.

About twelve months ago, Patrick M— applied to me for treatment, declaring that he had had a chill and fever every day for a week, although he had been taking daily, under a physician's directions, twenty grs. of quinine and thirty drops of Fowler's solution of arsenic. I stopped the quinine and arsenic and put him upon the lemon decoction, and the result was prompt relief. I met the same patient again a few days since, and he told me that he had several times had a return of the chills, but they were always promptly relieved by the lemon. He said that

he never had a chill upon the same day upon which he took the lemon.

In quite a number of cases where there had been a recurrence of the chills on the seventh, fourteenth, or twenty-first days, this habit was broken up by using Dr. Crudelli's remedy two or three days each week.

My usual plan for treating the intermittent type of malarial fever—and it has been very successful—is to give, when first called, a mercurial purge; I then direct quinine—from five to twenty grains, as may be necessary to prevent the paroxysm—to be given at one dose five hours before the expected chill; every morning thereafter, until the patient is considered cured, I direct the lemonade, à la Crudelli—to be taken before breakfast.

Of course, anæmia, engorgement of the liver and spleen, or any other of the sequelæ of malaria, must receive appropriate treatment. The greatest objection I find to the lemon treatment is the difficulty of getting the patients to carry out the directions. They think them too simple to seem to be very important.—*Medical Record*.

#### The Antipyretic and Abortive Treatment of Typhoid and Remittent Fevers.

DR. J. R. BARNETT, of Neenah, Wisconsin, in an able article read before the Wisconsin Medical Society recently, thus speaks of ammonium salicylate, its method of administering, action, etc., in these diseases.

In general terms, the dose of the salt is very near in size to the antipyretic dose of the acid, although not so large, for while the former is by far the more active germicide, it is also the better antithermic. The extemporaneous preparation of the salt from the acid and ammonium carbonate shows, after perfect evaporation, that it weighs but a

trifle more than the acid employed; that is to say, enough water and carbonic acid disappear in the reaction to nearly equal in weight the ammonium carbonate. The preparation of it is one of the simplest tasks of pharmacy, for it is not necessary that exact equivalents should be prescribed, as a slight excess of the carbonate is almost always an advantage. Two parts of the latter to three of the acid represent such a slight excess, and the following formula is a convenient routine prescription: Acid salicyl., 3 iij; ammon. carb., 3 ij; aq. menth. pip., 5 iv.

A teaspoonful of this given every two hours until its effects upon temperature are secured will usually be enough, although this quantity may, in many cases, be doubled. Symptoms of marked asthenia occurring early or late would make an increase in the ammonium carbonate necessary, but it is very seldom that it should exceed the acid in weight. On the other hand, in certain irritable states of the stomach any alkaline excess is objectionable, and a solution virtually neutral would be preferable. Such a solution would be obtained by taking out of the above formula 20 grains of the carbonate.

Now and then, where constipation is present, it seems to act as a laxative, although it seldom or never increases the symptomatic diarrhea of the fever. On the contrary, it has often seemed to lessen the frequency of the intestinal discharges, while unmistakably modifying their character for the better. Indeed, this effect would alone justify the use of the remedy in the majority of cases of typhoid, were there no more cogent indications for it to fulfill.

If the consideration of the treatment of these two fevers in a single paper needs an explanation or apology it is this:

Save in unimportant particulars the treatment is identical. Both are arrested by the ammonium salicylate; such arrest being limited to the pre-inflammatory stage of typhoid, while it is doubtless practicable in any stage of remittent fever. This is so probable that it may serve in the differential diagnosis of cases hard to make out—cases which occur with sufficient frequency to the most careful and observing clinician. It may be fairly assumed that in a case of supposed typhoid, seen first after the occurrence of striking abdominal symptoms, and shortly aborted, a revision of diagnosis is warranted if not demanded. At the same time it is practically unimportant to make the distinction, since the revision, when made, involves no corresponding change of treatment.

#### Blue Spots in Typhoid Fever.

DR. WILLIAM OSLER, in an editorial in the *Canada Medical and Surgical Journal*, says: With the rose colored rash in typhoid fever or occurring alone, there are sometimes to be seen bluish spots on the skin of the abdomen, back, and thighs, ranging in size from two to eight lines in diameter, and often arranged in groups. They were called *taches bleuâtres* by the French, and by this name have passed into literature, though the term *petiomata* has also been applied to them. Murchison gives a good description of them in his work on fevers (for good illustration, see his Plate V), and agrees with Jenner that they are usually seen in light cases. Though not very common, I have usually each session an opportunity to demonstrate them, and my attention has recently been directed to the subject by their occurrence in three cases in succession, all very severe.

In my experience, they occur indiffer-

ently in severe and mild cases. The spots are not elevated, but in certain light may appear, as Forget notes, depressed. They do not occupy the same layers of the skin as the typhoid rash, but are rather subcutaneous, as the pale dermis may be seen above them. Firm pressure causes them to disappear, and they fade after death. Murchison and Jenner state that they persist after pressure; but certainly, in the cases in which I have tested this point, the lividity could usually be removed.

The condition is not peculiar to typhoid, but occurs in relapsing typhus and simple fevers. I have never seen it except in association with the febrile state. I believe it to be a vaso-motor disturbance, inducing local areas of congestion in the subcutaneous tissue. Duquet and other French writers have expressed the opinion that they are caused by pediculi pubis, not by the punctures, but by the saliva extruded on to the skin. Certainly, the "blue spots" occur in cases in which no pediculi can be found, and it is curious that they should come out only in conditions of fever.

#### Fever—What is Its Significance.

DR. WM. H. WELCH (*Boston Medical Journal*), says: Unfortunately, we cannot to-day any more than could our predecessors give other than a speculative answer to this question. There have been in all ages enlightened physicians who have held the opinion that fever is a process which aids in the elimination or destruction of injurious substances gaining access to the body.

Under the influence of ideas which sought in increased temperature the origin of the grave symptoms of fever, we have in recent times in great part lost sight of the doctrine once prevalent, that there may be in fever a conservative



element. There is much which speaks in favor of this doctrine. The real enemy in most fevers is the noxious substance which invades the body, and there is nothing to prevent us from believing that fever is a weapon employed by nature to combat assaults of this enemy. The doctrine of evolution indicates that a process which characterizes the reaction of all warm-blooded animals against the invasion of a host of harmful substances has not been developed to such an extent, and is not retained with such pertinacity without subserving some useful purpose. This is a point of view from which many pathological processes can be regarded with advantage. Even suppuration, which one does not generally look upon as a beneficent provision, is a most important instrument of nature in forming a barrier against general infection of the body with certain micro-organisms.

It is impossible, with our present knowledge, to say in exactly what way fever accomplishes a useful purpose. There are facts which suggest that in some cases of fever the increased temperature as such may impair the vitality or check the virulence of pathogenic micro-organisms, but there are many circumstances which make it difficult to suppose that this is the agency by which fever usually exerts a favorable action. The supposition seems to me more probable that the increased oxidation of fever aids in the destruction of injurious substances. According to this view the fever-producing agents light the fire which consumes them; it is not incompatible with this conception of fever to suppose that the fire may prove injurious also to the patient, and may require the controlling hand of the physician. Time will not permit me to elaborate further the ideas here suggested.

In the course of these lectures some facts have been presented, and others might be drawn from clinical and experimental observations, which favor the hypothesis that fever is in a certain sense a conservative process. Unproven and intangible as the hypothesis may seem to some, no apology is needed for bringing to your attention a conception of fever in favor of which much can be adduced, and which, if true, is of fundamental importance, both theoretically and practically.

#### **Slag for Absorbing and Deodorizing Fecal Matter and Urine.**

AMONGST the many materials that have been suggested and used, from time to time, for the purpose of absorbing and deodorizing fecal matter, not one, perhaps, is so interesting to those engaged in sanitary science, says the *Lancet*, as the one whose properties were demonstrated at a meeting held in St. Stephen's Hall, Princes street, Westminster, inasmuch as the material used—viz., common slag—has puzzled for a long time many a practical chemist and engineer to know to what purpose it may with profit be applied. We remember hearing, however, some months ago, of the application of crushed slag as a dressing in agriculture for heavy clayey soils. It is said to be extremely porous, rendering the soil more absorbent, and is also of value as a manure on account of the notable quantity of phosphoric acid it contains. This most important subject of dealing with the sewage of our towns has been so much discussed, and is so well worn, that to point out the advantages or disadvantages of the dry-earth system over that of the water carriage system were superfluous. Suffice it to say, the inventors of this new material for the defecation of sewage matter (Messrs. M'Grego and M'Arthur, of Dundee)

take for granted that the advantages of the former system, at least in many cases are unquestionable. They further claim for it the following additional advantages: 1. The cheapness of the material, the cost being roughly estimated to be from one to two dollars per ton, including crushing and carriage; 2. its supply being practically inexhaustible; 3. its porous property, which, independent of (4) its manurial qualities, renders it valuable to clayey soil. Dr. Redwood gives the following analysis of the material after use: Fixed inorganic matter, after ignition, 71.68; insol. silicious matter, 60.50; lime, 2.85; phosphoric acid, 2.31; organic matter, with ammonia and water, 28.32; ammonia, ready formed, .08; organic nitrogen, .13; equal to ammonia, .15.

A sample was exhibited which had been in use five weeks ago, in which we failed to detect the slightest smell. The method of using it is similar to that adopted in the other earth closets. The pan is first charged with a certain quantity of the crushed slag, and, after use, another quantity is put in, the total quantity necessary, according to the inventor, being a third less than ordinary dry earth—that is to say, six persons would require one-third of a hundred weight of defecating matter per week. These assertions are so strong that a careful trial of this method, and, indeed, of any new method which aims at the healthy as well as useful disposal of so great a nuisance, is well worthy the consideration of every sanitarian.

#### Effect of Iron on the Vital Processes.

M. SKVORTSOFF, who has been working in the pharmacological laboratory in Warsaw, under Professor Tumas, has published an account of some experiments made with the view of elucidating the pharmacological effect of prepa-

rations of iron. His experiments were conducted on a dog; the nitrogen of the meat, urine, and fæces being estimated by the Kjeldahl process, the urea by Liebig's process, and the hæmoglobin by means of the new hæmochromometer of Malassez. The method adopted was as follows: The dog was kept the whole time on animal food, iron reduced by hydrogen being mixed with the food. The animal, having been got into a condition of nitrogenous equilibrium, was given iron for twenty days in gradually increasing quantities from .01 gram to .08 gram per diem. Then the nitrogenous metabolism was determined daily during seven days after the cessation of the iron. Twenty days after the conclusion of this period, the animal having recovered its nitrogenous equilibrium, twenty-six per cent. of the whole blood in the body was taken from the jugular vein, the percentage of hæmoglobin in the blood having been determined for some days previously. Subsequently this was again determined for a few days. Fifteen days after the venesection, when the hæmoglobin had returned to its normal account, a second venesection was performed, about thirty-four per cent. of the whole quantity of blood being this time abstracted. After this second bloodletting the animal was given iron in quantities of from .06 to .25 gram per diem, the hæmoglobin being determined as before. Fourteen days after the second venesection a third was practised, about twenty-five per cent. of the whole quantity of blood being taken. After this no estimation of the nitrogenous metabolism was made, but the hæmoglobin only was determined. The general results obtained are thus stated in a short "preliminary notice" communicated to the *Vratch*: 1. Iron does not affect to any appreciable extent the nitrogenous metabolism

in the healthy subject. 2. The internal use of iron in quantities greater than .02 or .03 gram per diem (in the dog which formed the subject of the experiment) decreased the assimilation of the nitrogenous parts of food, but only to a small extent; thus, before the iron the nitrogen assimilated was 98.4 per cent., during the administration of iron the nitrogen was only assimilated to the extent of ninety-seven per cent. 3. The assimilation of the nitrogen of the food was somewhat increased after the abstraction of blood whether iron was given or not. 4. If, after the blood-letting, iron was given with the food, the hæmoglobin increased more rapidly than if iron was not given. After the first venesection, when no iron was given, the hæmoglobin did not attain its normal quantity for fifteen days. After the second, which was by far the more copious abstraction of blood of the two, the administration of iron brought the hæmoglobin up to its previous percentage in five days, while in ten days it had exceeded its original percentage. It should be stated that the percentage of hæmoglobin immediately after the two bleedings was found to be the same. 5. The weight of the body after the bleeding increased more rapidly under iron than without it. After the first bleeding without iron, the rise in weight on the seventh day was eighty grams. After the second bleeding, iron being given, the rise in the same time was one hundred and eighty grams. After the third bleeding, which was performed as a control experiment, the rate of increase of hæmoglobin, no iron being given, was similar to that observed after the first bleeding.—*Lancet*.—*Therapeutic Gazette*.

#### Medicinal Eruptions.

LESSER reports (*Deutsch Med. Wchn.*) a case of erythema following a hypoder-

mic injection of calomel. The erythema was general, and of a scarlatina red, paled rapidly away and ended by scaling off of epidermis. Erythema appeared 11 hours after injection of the calomel.

#### The Douche as Affecting Blood-Pressure.

VISHEGORODSKI has published his researches on the effects of the general douche at different temperatures on the blood-pressure, pulse, respiration, and temperature. The experiments were conducted in a military hospital, the eleven subjects being hospital orderlies. The reservoir from which the water for the douches was supplied was about fifteen feet above the floor of the bathroom. From the reservoir two tubes, each about three-quarters of an inch in diameter, conveyed the water to the vicinity of the subject; one of these delivered the water in the form of rain; the other delivered three jets directed to the liver, the spleen, and the back. The duration of the douche was two minutes. The blood-pressure was estimated by means of Basch's sphygmomanometer, an instrument which consists of an elastic pad filled with liquid placed over the radial artery, and communicating with a mercurial or aneroid manometer. Vishegorodski found that with douches of from 63° to 90° F, the blood-pressure was considerably increased, but that douches of from 100° to 114° F. diminished it. The increase of pressure in the former case was found to persist for some time, not returning to its normal amount for more than an hour after the douche. The variations in the blood-pressure occurred simultaneously with corresponding variations in the cardiac beats, the latter becoming slower as the blood-pressure increased and more rapid as it diminished. This appears to be contrary to the results obtained by Delmas, who, however,

judged of the pressure merely by sphygmographic observations. Douches of a little over 90° F. produced scarcely any effect on the blood-pressure, the pulse or the respiration.—*The Lancet*.—*World's Medical Review*.

#### Tincture of Iron.

A CONVENIENT method of prescribing tincture of iron in a mixture that is not inky, is the following:  $\mathcal{R}$ . Tinct. ferri chloridi, f 3 ij; potass. citrat., 3 ij; tinct. gentian. comp.; elixir. simplicis, āā f 3 iij. M. Sig.—Two teaspoonfuls in water after meals.—*Coll. and Clin. Record*.

#### Treatment of Erysipelas by Nitrate of Silver Compared with that by Water Dressing.

THE results of very careful observations by Professor POLOTEBNOFF, of Russia, may be condensed as follows:

1. Nitrate of silver cannot be classified amongst those remedies, to which a power of "fixing" the erysipelatous process is attributed. True, there are now and then met sporadic instances where the process ceases to spread after the paintings under consideration; but a similar occurrence may be as often (or rather as seldom) noted, also under an entirely symptomatic treatment.

2. The nitrate does not possess any marked antipyretic action, the course of the fever remaining pretty much the same under either of the methods.

3. The nitrate does not prevent the development of the renal lesions.

4. Under the abortive treatment albuminuria lasts pretty nearly as long as in the expectative cases.

5. As to the cerebral and pulmonary complications, they occurred by far less frequently under the silver treatment than under the expectant one. But it remains as yet an open question, to which cause this difference may be ascribed—to a difference in treatment,

or to some quite accidental circumstances.

6. Mortality remains the same under either of the methods.

7. Nevertheless, nitrate of silver undoubtedly shortens, to a certain degree, the duration of the disease. Its beneficial action may be explained by the admission that the painting promotes a more rapid regressive evolution of local inflammation, for when, in a patient with both-sided facial erysipelas one side of the face is painted with the silver solution, while the other is covered with a simple water dressing, redness, pain, tenderness, and swelling disappear on the former side earlier than on the latter.

8. The said shortening, however, is but very trifling. In other words, the result does not in any way compensate for the troublesomeness of the painting procedure in a technical respect.

#### The Mechanical Treatment of Erysipelas.

A NEW method, called by the author the "mechanical" method, is proposed by Dr. ANTON WOELFLER, in an article published in the *Zeitsch f. Ther.* He was led to its adoption from a consideration of Barwell's plan of covering the erysipelatous area with white paint. He found, however, that simply painting the part was not sufficient, but that it was necessary to cover the diseased skin with some waterproof material retained by a bandage. Further experience showed him that, when the bandage became loose, the erysipelas was very apt to spread, and he then adopted the practice of sealing the covering with traumaticin, a solution of guttapercha in chloroform. This answered the purpose of keeping the disease within bounds very well, as a rule; but in certain parts, where there were many inequalities of surface and



where the skin was very movable, the erysipelas would occasionally escape from under the protective, necessitating an extension of the traumaticin dressing. The author then resorted to strapping with adhesive plaster, and had no further trouble. He reports over twenty cases successfully treated with the traumaticin or adhesive plaster. The disease process was confined to the area covered by the dressing, the temperature speedily fell, and the patient made a rapid recovery.

Dr. Woelfler regards the action of the compressive dressing as a purely mechanical one in preventing the invasion of new territory by the pathogenic cocci. It is probable, he says, that the microbe soon exhausts the material for its sustenance in the skin, and, unless it can spread to the neighboring healthy parts, it quickly dies. The operative methods prevent this spread by dividing the small vessels in the skin, thereby producing extensive capillary thrombosis, and the pressure of the traumaticin or adhesive plaster exerts a similar restraining influence.—*Ed. Med. Record.*

#### Apiol and Isapiol.

AS THE result of heating apiol, the so-called parsley camphor, with alcoholic potash, Messrs. CIAMICAN and SILBER have obtained a crystalline compound having the same composition as apiol ( $C_{12}H_{14}O_4$ ), which they have therefore named "isapiol." It melts at  $55-56^\circ$  (apiol melts at  $30^\circ$ ), and is soluble in ether, acetic ether, acetone, benzol, hot alcohol, and glacial acetic acid, but insoluble in water, alkalies, and carbonated alkalies. Both apiol and isapiol yield, upon oxidation with potassium permanganate in alkaline solution, a crystalline acid represented by the formula  $C_{10}H_{10}O_6$ , and named "apiolic acid;" but isapiol when oxidized with po-

tassium bichromate and sulphuric acid, yields a neutral compound ( $C_{10}H_{10}O_5$ ). Isapiol has been tested physiologically therapeutically in the Padua clinic, and is reported to exercise a pronounced influence upon the vaso-motor system. Small doses (.2 to .4 gram) administered internally produced in half an hour excitation of the heart, with powerful pulse; larger doses (.6 to .8 gram) were followed by a rebounding pulse, the effect continuing for several days after administration, when the preparation had been previously used for some days. Like apiol, isapiol induced headache and passing intoxication, and after repeated ingestion, caused digestive disturbances, loss of appetite, and even fever. Against dysmenorrhea it was useless, and also in a case of ague.—*Pharm. Journ. and Trans.*

#### Creoline as a Mouth Wash and Gargle.

SCHNITZLER recommends (*Internat. klin. Rundschau*) creoline in the obstinate form of follicular angina; he applies it with a brush or uses it in an atomizer. The taste is disagreeable. The following formulæ are given :

R. Creoline, gr. xv-xxx; aq. destil., Oi; aq. menth. pip.,  $\bar{3}$  iii. M. Sig. Use as a gargle.

R. Creoline, gr. xv-lxxv; aq. destil., f  $\bar{3}$  iss-iii. M. S. For local application with brush.

R. Creoline, gr. iss-viiss; acidi borici,  $\bar{3}$  iiss; ol. menth. pip., gtt. xx. M. Sig. For insufflation.—*Deutsche Med. Wochenschrift.*—*Med. & Surg. Reporter.*

#### Poisons and Their Antidotes.

THE following brief summary of the most rational and simple antidotes to the commoner forms of poison in daily use by artists and artisans, has been compiled for the *American Analyst*, by Dr. FRANCIS WYATT, and it will be

seen that he has suggested the most appropriate to be supplied in any emergency, pending the arrival or in the total absence of a skilled medical practitioner;—

**Poisons.**

**Antidotes.**

1. Acid—Carbolic, sulphuric, nitric, muriatic, nitro-muriatic, creosote, iodine, phosphorus.
2. Chromic acid, chromates, all preparations or compounds of chromium, antimony, copper, mercury or zinc.
3. Ammonia, soda, potash, alkaline, silicates and sulphates.
4. Prussic acid and its salts, all cyanides, and sulpho-cyanides, oil of bitter almonds and nitro-benzine.
5. Ether, petroleum, benzine, fruit essence, concentrated or absolute alcohol.
6. Compounds of baryta and lead.
7. Compounds of arsenic.
3. Oxalic acids and its salts.
1. White of egg well beaten up with water. A teaspoonful of mustard flour in a cup of hot water. Very thick lime water—(in case of sulphuric, nitric, muriatic or nitro-muriatic acids).
2. Abundance of white of egg in water. A teaspoonful of mustard flour in water. Copious draughts of an infusion of salt herbs.
3. Strong vinegar and water. Large doses of oil. Large doses of milk.
4. Continuous and heavy douches of ice cold water over the head and spinal column. Mustard plasters on the stomach and soles of the feet. Prevent sleep.
5. Plenty of mustard flour in large quantity of hot water. Cold water douches. Fresh air. Prevent sleep absolutely.
6. A teaspoonful of mustard flour in warm water. Strong solutions of Epsom salts and Glauber's salts in cold water.
7. A teaspoonful of mustard flour in warm water. A teaspoonful of dialysed iron mixed with the same quantity of calcined magnesia every five minutes for one hour. Then plenty of oil or milk, or some mucilaginous tea, say linseed.
8. Very thick paste of lime and water by large spoonfuls at the time. After several of these, large draughts of lime water. Finally, 4 ounces castor oil.

9. Nitrate of silver.
9. Large doses of ordinary kitchen salt dissolved in water, after which one teaspoonful of mustard flour in warm water.
10. Nitrous fumes of vapors, arising in vitriol or chemical works.
10. Frequent and small doses of strong acetic acid—the stronger the better.

**On the Recent Perfection of the Method of Counting the Red and White Blood Corpuscles.**

PROFESSOR MAYET (*Arch. de Phys. Norm. et Pathol.*), has invented a new solution for the use of Hayem and Malassez's apparatus for counting the blood cells. The objections which he makes to the solutions now used are that they do not distribute the elements uniformly, that some of the red cells become altered so as to greatly resemble granular leucocytes, and that solutions themselves are quickly altered. The author makes his solution for Hayem's hæmocyto-meter as follows: Five hundred cubic millimetres of a one-in-one-hundred solution of osmic acid, the density of which is 1.006, are mixed with four cubic millimetres of the blood to be examined, and the mixture is set aside for two minutes to allow the solution to react upon the elements, which are thus rendered apt to fix coloring substances. Then he adds 500 cubic millimetres of a solution with a density of 1.162, composed of 55 cubic centimetres of distilled water, 45 cubic centimetres of pure glycerin, and 17 cubic centimetres of a one-to-one-hundred solution of eosine. The mixture is to be well stirred.

The result of this process is that the serum acquires a density of 1.084, which favors a perfectly uniform distribution of the elements, and that the eosine stains the red cells very quickly, the leucocytes, undergoing only an exceedingly slight change in color. This

facilitates the counting of the cells, since they are differently colored and their natural shape is preserved. The author takes four instead of two cubic millimetres of blood, which accounts for the doubling of the serum indicated by Hayem.—*N. Y. Medical Journal*.

### DISEASES OF THE NERVOUS SYSTEM.

#### Chorea of the Soft Palate caused by Hypertrophy and Hyperæsthesia of the Mucous Membrane Covering both Inferior Turbinated Bodies.

DR. J. E. SCHADLE, of St. Paul, read a paper on this subject. That the origin of not a few reflex nervous disorders could, with a certain degree of exactness, be traced to the presence of morbid conditions of the nasopharyngeal cavities was, he said, no longer doubted. Some forms of headache and of spasmodic asthma were in many instances the outgrowth of a nasal polypus, a turbinated thickening, or a septal deformity. These reflex neurotic disturbances disappeared soon after appropriate measures of treatment had been directed toward the removal of their cause.

A case was related that had first come under the observation of Dr. Baker, of St. Paul. The only thing complained of was a constant contraction and relaxation of the levatores palati. Each contraction carried the uvula upward and backward till it came in contact momentarily with the upper and back part of the pharynx. The relaxation and separation of the moist mucous membrane surfaces caused a sound like that produced by a rapidly ticking watch, and of the same frequency. The young lady was in excellent health, all the bodily functions being well performed. Dr. Baker's treatment had been, at first, the use of

increasing doses of bromide of zinc. This not producing the desired result, he had given tincture of physostigma in doses ranging from fifteen to thirty drops. After continuing this for a time, he had abandoned it and prescribed fluid extract of *Cimicifuga racemosa*, in doses of from half a teaspoonful to a teaspoonful every four hours.

On July 7, 1887, the use of galvanism was begun. Eight cells of the Mcintosh battery were used, the positive pole with a sponge electrode being placed at the back of the neck; the negative pole with a metal-tipped electrode was applied to the palate just above the uvula. The sittings were of from five to ten minutes' duration, and the number of cells used was increased to eleven. Examination showed enlarged tonsils with evidence of throat and nose disease. The patient was examined by Dr. Schadle on the 16th of April, 1888. She suffered from constipation and flatulence quite frequently. The heart's action was more or less excited, the organ beating tumultuously when she ascended a flight of stairs or any elevation. She complained in a marked degree of obstructed nose breathing. Her voice was impaired, especially when she attempted to produce head tones, as in singing. The principal affection complained of, and the one for which she had been referred to him, was the spasmodic movement of the velum palati. A faucial examination revealed distinct rhythmical choreiform movements of the velum palati, accompanied by a peculiar clicking sound, distinctly audible for a distance of twelve or fifteen feet from the patient. Anterior rhinoscopic examination revealed chronic hypertrophy of the inferior turbinated bones, and, in a more marked degree,

of the middle one, the presence of whose redundant tissue exerted pressure on the septum and produced obstruction of the middle meatus.

The treatment was mainly surgical. The first impression entertained was that possibly the enlarged pharyngeal tonsil might have been a source of the trouble, and that a thorough removal of it would do away with a foreign element constantly coming in contact with the opposing surface of the velum palati, thus exciting clonic spasms. Snaring was impracticable. By the use of Cohen's post-nasal cutting forceps and the electro-cautery, he reduced the growth in its entirety, a procedure that was followed by cessation of the choreiform movements, which remained absent for a period of two weeks, when they suddenly returned during a spell of nervous excitement.

Attention was next directed to treatment of the nasal passages. The pathological changes found in them offered a theory for a reflex cause of the affection. Cocainizing the intranasal mucous membrane generally produced relief for half an hour. With a view to reducing the hyperæsthesia and hypertrophy of the turbinated bodies he employed the electro-cautery, thoroughly burning the affected parts. The trouble at once ceased. Nose breathing displaced mouth breathing, and the dry sensation and sticky secretions of the pharynx gradually disappeared. The functional disturbances of the heart and shortness of breath passed off, while the general nervous system gained tone.

The patient could now speak and sing with a clearer voice, and the head tones were improving daily. Beyond a doubt a cure had been produced, the permanency of which had already been severely tested.

#### Infantile Paralysis.

A CASE of infantile paralysis, with this history: At fifteen months of age had an attack of hemiplegia, with more or less restoration; no electric sensibility; marked diminution of electro-contraction. Professor Bartholow prescribed the combined action of galvanic and faradic currents; internally, hypophosphites and cod liver oil, and hypodermatic injections of strychnine into the muscles.—*Coll. and Clin. Record.*

#### On the Secretory Fibers of the Sympathetic Supplying the Parotid.

J. N. LANGLEY (*Four. of Phys.*) remarks that it is usually said that the parotid receives trophic but no secretory nerve fibres from the cervical sympathetic, because its stimulation rarely excites any secretion. The author found, however, that stimulation of the sympathetic was always followed by secretion by the parotid, if the gland was previously prepared to secrete. Or, in other words, the sympathetic secretory fibres are non-effective, unless the gland has been supplied with a considerable amount of oxygen. The gland never failed in the author's hands to respond to sympathetic stimulation if it was previously prepared to do so by irritation of the chorda tympani, especially if a small dose of atropine sulphate had been injected into a vein. The relations of the submaxillary and sublingual glands to their cerebral and sympathetic nerves were found to be of a nature similar to the foregoing.—*N. Y. Medical Journal.*

#### Babinski on a Special Deformity of the Trunk Caused by Sciatica.

DR. BABINSKI, *chef de clinique à la Salpêtrière*, devotes a long article, with drawings by Professor Charcot, to the consideration of a peculiar attitude seen in persons affected with sciatica.



Professor Charcot first remarked this attitude in a private patient, and illustrated it. Shortly afterwards an out-patient presented himself at the Salpêtrière with exactly the same attitude. Charcot now announces, when he notices at a distance a fresh patient with this carriage of the body, not only the existence of sciatica, but its site. Babinski brings forward five cases, two of which were communicated by Charcot. The attitude is differentially diagnostic of sciatica, and may be summed up by saying that the patient leans on one side,—the side opposite to the affected side,—but in a peculiar way. Taking a case in which the sciatica was on the left side, the description is as follows: When the patient is standing he is seen to rest most of his weight on the right leg; the trunk deviates much to the right, and is slightly flexed at the pelvis. The right shoulder is higher than the left. The lower ribs on the right side approach the iliac crest. The vertebral column presents two lateral curvatures: the lower one with its concavity to the right, the upper with its concavity to the left. Both plantar surfaces rest on the ground. This attitude cannot be modified, and the deformation persists when the patient lies down; he cannot lie on his belly, and when he is on his back the thigh is slightly flexed on the pelvis, and the leg on the thigh. The shoulder of the affected side was higher in this case. In one case it was on the same level as the other, in two cases it was higher, and in two cases it was lower, so that no rule can be drawn as to the shoulder. The trunk is carried in the same way in all cases, and the double lateral deviation of the spine is always present, the lower one (lumbar) with its convexity towards the affected, the upper one (dorsal) with its convexity the opposite way. The lower border of

the ribs on the side opposite to the sciatica always approaches the iliac crest. Lastly, although the patient rests chiefly on the healthy limb, the opposite foot is quite as much in contact with the ground in its whole extent. These three are the chief characteristics of this special attitude, which is more marked when the patient is fatigued, and which is in closer connection with the intensity of the pains than with the duration of the malady. By this attitude it is easy to see that the sciatic nerve is less compressed by the muscles; for the same reason no part of the foot is raised, though the other foot bears the weight.—*London Medical Recorder*.

#### Anchoring of the Brain and Some of its Consequences.

IN regard to this Dr. WM. MAC EWEN, in his address at the recent annual meeting of the British Medical Association, said: When injury has been inflicted on the surface of the cerebrum, followed by plastic effusion and cicatricial formation, the superficial substance is apt to become soldered to the membranes when these remain intact, which in turn may be soldered to the skull, or in the event of their detachment, the brain may become directly adherent to the bone by means of cicatricial adhesion. Thus the surface of the brain becomes anchored or soldered to its rigid walls. It has no longer the free play within its water bed to expand and contract according to the varying states of the circulation. Each variation produces a dragging of the brain at this spot, and through it the whole hemisphere at least is affected. Any sudden physical effort pulls on the brain, producing a slight shock, a momentary disturbance, just as if the cerebrum had received a blow. Vertigo results. People affected in this way

cannot rise up quickly, or perform any sudden motion of the body or head, without experiencing a sensation of giddiness, which sometimes causes them to drop. Consequently, they are often incapacitated from pursuing their usual avocations.

Following upon this, the gray matter of the cortex, immediately surrounding the cicatrix, by the incessant movement is apt to become unstable and to produce fits. Some cases of traumatic epilepsy are thus caused. Further, if the cortical irritation be continued, encephalitis is occasionally produced, often appearing in a chronic form and long remaining so, though susceptible of being lit up into an acute affection. If the temperature remains high, active interference is apt to induce an extension of the encephalitis. Operation in such cases should be, when possible, postponed. The disregard of this advice has, to my knowledge in one instance, hastened the fatal issue, encephalitis becoming general.—*Brit. Med. Journal.*

### • • • DIGESTIVE TRACT.

#### Prescription for Gastralgia.

WEISSENBERG'S formula is (*Union Médicale du Canada*): Hydrochlorate of cocaine, gr.  $1\frac{1}{2}$ ; extract of belladonna, gr.  $7\frac{1}{2}$ ; powdered rhubarb; extract of rhubarb, āā q. s. M. Ft. pil. No. xx. Take, one pill three times a day, at the moment of eating.

#### Constipation.

PROFESSOR BARTHOLOW, in the *Coll. and Clin. Record*, gives the following:

℞. Tinct. nucis vomicæ; tinct. belladonnæ; tinct. physostigmæ, āā ʒ ii. M. Sig.—Thirty drops in water morning and evening.

When constipation is due to torpor of the muscular layer of the intestine,

combined with deficient secretion of the mucous membrane, this formulæ is often very serviceable, or the following may be taken: ℞. Tinc. colum., ʒ xv; tinc. opii. deoder., ʒ j. M. Sig.—A teaspoonful in a wineglassful of water before meals.

#### Diagnosis of Diseases of the Liver and the Fever Accompanying Biliary Obstruction.

DR. E. G. JANEWAY (*Medical and Surgical Reporter*):

Physical examination alone cannot be relied upon in diagnosis of diseases of the liver; the etiology and symptomatology have to be taken into account, and in many cases light will be reflected from the condition of the spleen. It is very easy to make a mistake in estimating the size of the liver. Some, he said, regard tympanitic percussion sound intruding on the space for liver flatness as an absolute sign of perforation of the bowel; but he himself had found this to be due in some cases to the existence of a portion of intestine between the liver and diaphragm, and in others to the liver being turned up by a tumified condition of the abdomen. Adhesion of the liver to the diaphragm from perihepatitis may also prevent tympanitic percussion sound from replacing liver flatness in intestinal perforation. We must take into consideration, he said, in studying diseases of the liver, the condition of the heart, lungs, abdominal viscera, and especially of the kidney. An enlarged right kidney may, in one instance, make the liver appear too small, and in another too large, according as it displaces the liver forward and downward or upward and backward. Aneurism and tumors behind the liver have been known to push the organ forward, making it appear large. The intestine or omentum may become adherent to the liver and make it appear enlarged.

Livers were classified according to size in different diseases, but he mentioned cases in which, in the same disease, the liver was in one instance small and in others large, including, of course, cases of cirrhosis. Dr. Janeway regarded nodulation as an important aid in diagnosis in cancer and cirrhosis; but the liver sometimes appears large and smooth because of distribution. He divided livers up into smooth large livers and nodular livers, and said that here one must rely on other than physical signs in determining the disease present. Illustrations were given in cirrhosis, waxy liver, and infiltrating cancer. He then took up small livers, and said that moderate diminution in size is often difficult to determine.

Aid in diagnosis, he said, is obtained from jaundice; but here also there is liability to error; for a diseased process surrounding the ducts is more likely to cause jaundice. A limited process may cause it, if it is favorably situated, although jaundice may not be present in a large process. Jaundice is frequently absent in solitary abscess and present in multiple abscess. A case was cited showing that obstruction of the bile duct is not absolutely necessary to cause absence of bile from the feces.

#### The Purgative Action of Glycerin Enemata.

THE value of injections of glycerin as a purgative, before alluded to in the columns of the *Gazette*, has been confirmed by the report of one hundred and fifteen cases by G. REISINGER, in the *Prager Medicinische Wochenschrift*. Of the one hundred and fifteen injections, one hundred and one (or about eighty-seven per cent.) resulted in an evacuation of the bowels, frequently very abundant in amount, occasionally very scanty. The consistency of the evacuation varied from a true diarrheic

passage to one of high degree of solidity. The intervals elapsing after the injection, before the bowels were moved, varied in the majority of the cases between two minutes and a quarter of an hour, although in some cases two hours elapsed before any effect was evident. The cases in which these results were obtained were of the most varied pathological nature, and included the most varied forms of intestinal and gastric troubles, and, although the material at the author's disposal was very rich, he does not feel warranted in drawing a conclusion as to what pathological processes are refractory to this treatment.

In five cases in which this remedy was employed, a post-mortem examination, subsequently made, revealed no alteration in the mucous membrane of the rectum which could be attributed to the local action of the glycerin. It is evident that the action of glycerin on the rectum is not a purely mechanical one, since an injection of an equal amount of an albumen solution, or other purely indifferent substances, produced no effect whatever.

It would, therefore, appear that the explanation of the action of glycerin must be found in some direct chemical action of the glycerin on the rectal mucous membrane. That this action is not dependent upon the extraction of water from the mucous membrane by the glycerin is improbable, from the fact that concentrated solutions of sodium sulphate, brought in a similar manner into the rectum, either produce no effect or fall far behind glycerin in promptness. The only assumption remaining is that glycerin in some other way produces an active reflex intestinal peristalsis. From the author's results, it would appear that glycerin employed in the form of enemata, while not an

absolutely infallible purgative, is so constant in its action, and so free from danger, that it must be regarded as a valuable addition to our armamentarium.—*Therapeutic Gazette*.

#### DISEASES OF RESPIRATORY ORGANS.

**Dr. Carl Seiler's Antiseptic Spray for Reducing Acute and Subacute Inflammation of Nasal Mucous Membrane.**

SODII bicarb., dr. viii; sodii bibor. dr. viii; sodii benzoate, gr. xx; sodii salicylate, gr. xx; eucalyptol, gr. x; thymol, gr. x; menthol, gr. v; ol. gaultheria, gtt. vi; glycerine, oz. viiiss; alcoholis, oz. ii; aquæ q. s. 16 pints.

This formula gives a solution which is sufficiently alkaline to dissolve the thickened secretion adhering to the nasal mucous membrane, and as it is of the proper density, it is bland and unirritating, leaving a pleasant feeling in the nose. At the same time it is antiseptic and acts as a deodorizer, being in this respect far superior to Dobell's solution, or any other non-irritating deodorizer and antiseptic. As it is, however, inconvenient for many patients to have so large a quantity of solution on hand, one of our Philadelphia druggists made the solid ingredients into a compressed tablet, so that one, when dissolved in two ounces of water, will make a solution identical in its effects with the solution made after the above formula, and my patients prefer the tablets to the solution.—*Medical World*.

#### Catarrh.

CARBOLIC acid and alcohol each ten parts, aquæ ammonia twelve parts, and listerine twenty parts. A two ounce wide-mouthed bottle is filled one-third with this mixture, and enough absorbent cotton introduced to absorb the whole. The bottle is then corked, and is ready for use by inhalation.—*Medical Brief*.

#### Terebene in Bronchorrhœa.

DR. JOHN W. MARTIN, in a communication to the *Medical Press and Circular*, says: That he has employed terebene in three cases of bronchorrhœa, with marked success. His first case was that of a woman 79 years old, who had an attack of right hemiplegia, followed by a severe attack of bronchopneumonia. At the decline of the inflammatory stage profuse bronchorrhœa set in, accompanied by a state of great exhaustion. A variety of treatment failed to give relief. In addition to the bronchial discharge there were urgent digestive troubles, dyspepsia, flatulent distension of the stomach and intestines, causing much inconvenience to the action of the heart, and seriously interfering with the administration of proper nourishment. The urine was free from albumin. Terebene was first ordered dropped on a lump of sugar, but this proved to be disagreeable to the patient, so that the following formula was substituted: Gum terebene; spir. chloroform, ʒʒx; mucilage of tragacanth, f ʒi; syrup, f ʒss; water, q. s. ad f ʒi.

Dr. Martin states that from the day the terebene was ordered there was a steady improvement of a most marked character. Of the other two cases one was a man, about 40 years old, suffering from passive broncho-pneumonic congestion, attended by profuse expectoration. The patient was very weak, and no treatment seemed to give relief until he was placed upon terebene. Immediate benefit was apparent. Marked diminution was noticeable at the end of twenty-four hours, and expectoration ceased within three days. The further progress of the case was in every way satisfactory. The third case was that of a wine merchant's traveller, who had, at the outset, acute broncho-pneumonia.



When the acute symptoms subsided, profuse expectoration remained a very troublesome symptom. Various remedies failing to check this discharge from the lungs, terebene was ordered by Dr. Martin with rapid and most beneficial results. The expectoration almost disappeared at the end of the third day, and the patient steadily improved. In prescribing terebene or turpentine, he regards it as necessary to be careful to examine for kidney mischief. If such is present, he would regard it as a contra-indication to the use of terebene.—  
*Medical and Surgical Reporter.*

#### Clinical Notes on the Use of Antipyrine in the Nasal Passages.

DR. F. WHITEHILL HINKEL, of Buffalo, N. Y., in an article read recently before the American Laryngological Association, arrives at the following conclusions as to the value of antipyrine in diseases of the nasal passages:

1. A solution of antipyrine possesses hæmostatic properties when sprayed into the nose, though not superior to cocaine.

2. Antipyrine in about four per cent. solution may be used upon the nasal mucous membrane with temporary relief to occlusion from engorgement of the turbinates, and with sedative effects upon irritable states.

3. It is most effective where the element of irritation exceeds that of inflammation.

4. It presents an advantage over cocaine in not producing local numbness and dryness, and in the absence of the general stimulating properties of cocaine, causing sleeplessness, headache, etc. In cases such as hay fever, where an agent of relief is used for long periods, antipyrine as a nasal spray is less likely than cocaine to produce constitutional disturbance or lead to a "habit."

5. Antipyrine presents the disadvantage of causing more or less severe smarting, and of being unequal to the relief of severe inflammation or extreme occlusion of the nares.

6. Its antiseptic and stimulant properties will probably make it serviceable as an application to fresh wounds and to granulations and ulcerations in the nasal chambers.

7. Combined with cocaine, it increases the local action of the latter, enabling it to be used in weaker solution.

#### Inhalations in Lung Troubles.

DR. C. T. WILLIAMS, in a paper on this subject read by him at the recent meeting of the British Medical Association, gives from his experiences the following conclusions: 1. That the success of inhalations as a mode of medication depends principally on the easy convertibility into gas or vapor of such substances as are clearly desirable for the purpose. 2. That, consequently, bodies which are volatilized at ordinary temperatures are more readily absorbed by the lungs than bodies which have to undergo combustion before conversion into gases. 3. That all moist inhalations where steam, watery vapor, or spray is the vehicle of medication are but slowly absorbed by the lungs and enter the circulation in small quantities, and in some cases not at all. 4. That medicinal inhalations are more useful in diseased conditions of the pharynx, larynx, and larger bronchia than in those of the alveoli and lung parenchyma; and 5. that in pulmonary disease the antiseptic respirators, while they lessen cough and reduce expectoration, exercise no lasting remedial influence on the diseased conditions of the lungs, and often seriously interfere with the freedom of respiratory effort so desirable in the treatment of such affections.

## CONSTITUTIONAL DISEASES.

### The Management of the Stage of Convalescence in Typhoid Fever.

At the meeting of the Association of American Physicians, held in Washington, September 18, 1888, Dr. JAS. H. HUTCHINSON, of Philadelphia, read a paper on the "Management of the Stage of Convalescence in Typhoid Fever."

With the return of the normal temperature the physician is prone to overlook the danger. The authorities differ greatly as to the rules laid down for the management of this stage, some advising the administration of solid food so early as the second day after the cessation of the fever; others not until a week or ten days have passed. Dr. Hutchinson favors the continued use of the milk diet, with a little milk toast, and at the end of two weeks butcher's meat. The only objections to be urged against the milk diet are the wishes of the patient and the tendency it occasionally has to produce constipation.

The administration of alcohol may be withheld in many instances; but on the other hand, it may for the first time become necessary, and no doubt convalescence is often very much hastened by its use. Hupham's tincture he has found useful at this time, together with iron, and pepsin and muriatic acid. Severe cases should remain in a recumbent position for a week after the beginning of convalescence. At first the patient may sit up for a half hour, the time to be gradually increased. As soon as the patient's strength will permit, he should be removed to an adjacent room. Exercise in the open air is to be encouraged as soon as strength is regained. Convalescent typhoid patients are more emotional than in health, and severe relapses may occur from mental excitement. It has

been noticed at the Pennsylvania Hospital that after visiting days there is more or less recrudescence of fever. The causes of recrudescence of fever and of relapses, and of some of the least known of the sequelæ of typhoid fever, were also considered.

Dr. Peabody, of New York, in opening the discussion, stated that he did not believe that errors in diet were so frequently the cause of recrudescence as was formerly supposed. In regard to ulcers as a cause of diarrhea, he is of the opinion that their presence has nothing whatever to do with its production, a conclusion derived from the frequent study of cases at the autopsy table.

Dr. Ord, of London, in a general way agreed with the reader of the paper, but thought that one cannot lay down hard and fast rules. One must be guided in a measure by the desires of the patient, and must give in to these desires. He referred to a hospital case which ran the usual course up to a certain period in the convalescence, when there was added a more extraordinary range of temperature for days, with delirium, and an abiding desire for food. The patient had been allowed milk and beef-tea, and for ten days two eggs daily. She was given boiled sole, and within twenty-four hours her temperature was normal, and convalescence was thereafter uninterrupted. We should study the individual as well as the fever.

—*Medical Record.*

### Intra-Pleural Injections of Sterilized Air in the Treatment of Pleuritic Effusions.

In a paper read before the Académie de Médecine, of Paris, Professor POTAIN described a new method for the treatment of hydrothorax. He stated that the chief danger of pneumothorax is in the entrance of air laden with pa-

thogenic organisms. The operation of thoracentesis is one of the common causes of pneumothorax, as it is often impossible, during its performance, to prevent the air from entering the pleural cavity. The author has found that the substitution of air for a pleuritic exudation is not dangerous, and may be of decided advantage if care is taken to thoroughly disinfect it. He has practiced his method in three cases. In the first, in which there was an extensive tuberculous pleuritis, he evacuated two liters of sero-fibrinous fluid and pumped in sterilized air. The operation, although twice repeated, was entirely successful, the patient being perfectly cured in the short period of three months. A double current catheter was employed, the fluid flowing out from one arm while sterilized air was injected through the other. It is a matter of interest that the air introduced during the first operation when evacuated at the second sitting was found in an aseptic condition, and had also prevented any decomposition of the effusion. This is confirmatory of the view that in the cavities of the body aseptic matters remain aseptic. In one of Potain's cases the intra-pleural injection was instrumental in saving the patient's life, relieving the severe dyspnœa consequent on the withdrawal of a large pleuritic effusion, by raising the pressure within the thorax.

Although the author has had only a limited experience with his method, he thinks that the results thus far obtained demonstrate its therapeutic value. It is unattended with danger if care be taken to inject only aseptic air. For the dangers of pneumothorax are not occasioned by the air *per se*, but by the germs contained therein. He formulates the following conclusions:

1. It is possible to replace completely by air the effusions of pleurisy, provided that only sterilized air is used.

2. The air deprived of germs by filtration through cotton exerts no noxious effects and does not provoke decomposition of pleuritic effusions.

3. This procedure counteracts the serious dangers which result from the presence of large effusions in the pleural cavity, or from their rapid withdrawal.

4. On the other hand, it enables us to avoid the serious drawbacks of repeated punctures, and permits of gradual and slow expansion of the lung.

5. Finally, it appears to favor the cicatrization and even the definite cure of tubercular lesions, by placing the lung in a condition of comparative rest.—*Bulletin de l'Académie de Médecine.*

#### German Treatment of Obesity.

IN an article published in the *Boston Medical and Surgical Journal*, Dr. J. B. YEO gives the following interesting summary:

The following, then, are the objects aimed at in this cure:

1. To improve the muscular tone of the heart.

2. To maintain the normal composition of the blood.

3. To regulate the quantity of fluid in the body.

4. To prevent the deposit of fat.

These objects are attained by the following means:

1. The muscle of the heart is strengthened by enforced exercise, such as climbing heights. This requires great care, and the exercise must be graded, the amount of work being increased as the patient can bear it.

2. To preserve the normal composition of the blood the food should be chiefly albuminous. It may consist of

the lean of roast or boiled beef, veal, mutton, game, and eggs. Green vegetables (as cabbage or spinach) may be taken; fat and carbohydrates only in very limited quantities; from four to six ounces of bread per diem.

3. To regulate the quantity of fluid in the body the amount of fluid drunk daily must be limited. One cup (rather less than six ounces) of coffee, tea, or milk morning and evening, and about twelve ounces of wine, and from eight to sixteen ounces of water, shall comprise all the fluid consumed in twenty-four hours. Beer is entirely forbidden. The discharge of fluid from the body is promoted by active exercise, and occasionally by a course of baths, with packing.

4. To prevent the deposit of fat the principles of diet already set forth must be carried into practice as follows :

*Morning*.—One cup of tea or coffee, with a little milk, altogether about six ounces; bread about three ounces.

*Noon*.—Three to four ounces of soup, seven to eight ounces of roast or boiled beef, veal, game, salad, or a lighter vegetable, a little fish (cooked without fat) if desired, one ounce of bread or farinaceous pudding (never more than three ounces), three to six ounces of fruit, fresh preferred, for dessert. It is desirable at this meal to avoid taking fluids, but in hot weather, or in the absence of fruits, six to eight ounces of light wine may be taken.

*Afternoon*.—The same amount of coffee or tea as in the morning, with, at most, six ounces of water, an ounce of bread as an exceptional indulgence.

*Evening*.—One or two soft-boiled eggs, an ounce of bread, perhaps, a small slice of cheese. Salad and fruit, six to eight ounces of wine, with four to five ounces of water.

Such, briefly summarized, are the

principles of this peculiarly German anti-fat regimen, for which, as Dr. Yeo rightly affirms, the credit almost entirely belongs to Professor Oertel, the main features of it having for years been set forth in his writings. These principles seem to commend themselves as sound, though their practical application will require continued modification to adapt them to the stage of the affection, to the constitution and habits of the patient.

#### Gout.

At a recent clinic held at Bellevue Hospital, Professor LOOMIS presented the following interesting case :

The patient was a man, 42 years old, a barkeeper by occupation, and a well nourished and healthy looking man. He was brought before the class with the history of having been acutely sick for four days. In speaking of his history to the class, Dr. Loomis said that he gives no family history of gout. He has always been a drinking man, indulging in all sorts of drinks, averaging twelve to fifteen a day. He has been also a hearty eater, eating rich and nutritious foods. For many years he has not taken any active exercise, none at all out of doors. His first attack came on about fourteen years ago. In previous good health, he awoke one morning to find the great toe red, swollen and very painful. These symptoms increased for the first few days, the pain being most severe at night ; and then these signs subsided, leaving him perfectly well. The duration of the attack was about one week. He remained in good health for about one year, when he was again suddenly seized with an illness similar to the one just described. The same joint was affected; the acute signs lasted, as before, four or five days, but the toe remained stiff and tender, and he could not go about well for nearly



two months. After this, the attacks increased in frequency; other joints became affected—the fingers, elbows, knees, shoulders and hips; and, during the interval between the acute exacerbations, he was never entirely free from stiffness and soreness in certain locations. At the present time, there is a typical swelling at the knuckle of the index finger of the right hand, and also at the joints of both big toes.

This, then, is a characteristic case of gout. The one exceptional feature it presents is the fact that there is no history of hereditary taint. Gout is a disease that is almost always hereditary, and further, that usually requires more than one generation for its development. A gouty parent is certain to give the gouty diathesis to his children. But in this patient there is no such history, and we look to the fact that he has been almost all his life in-doors, eating largely and drinking largely—especially of wines and ales—to find the cause of his disease. A man cannot develop gout in one generation on wine alone; it can occur only in those who eat more than they can assimilate, and at the same time do not take sufficient exercise.

Dr. Loomis does not believe in the existence of rheumatic gout; the disease is either one or the other, rheumatism or gout. A patient may have an attack of rheumatism, and later on he may also have gout, but there is no combination of the two diseases.

Gout, as it becomes chronic, in all cases as in this one, makes its victim a cripple. In an acute attack, the first change in a joint is the deposit of urate of soda on the fringes and edges of the cartilage; accompanying this there is hyperemia, etc. At first, these deposits are removed after the attacks, but later on they remain and thus incapacitate the joint. Similar deposits may occur all

over the body, and may be seen in the joints, skin, ear, eyelids and elsewhere. The present case he believes to be the earliest in regard to development he has seen in non-hereditary gout. Where this tendency is strong he has seen the disease manifest itself in children of five and six years of age. In this patient it began as it always does, in the big toe. As is almost always the case, this patient has refused to give up his mode of living. He loves his table and he seasons his food highly. The gouty subject is a *bon vivant*, and it is always a pleasure to dine with him. In this lies the difficulty of weaning these people from this active cause, over-feeding. In the treatment of these cases little can be expected from local applications; but the limb should be well elevated, and colchicum should be given. It is to this drug that entire treatment is trusted; it will relieve an attack, and that is all.

Dr. Loomis long ago found out that there is but one preparation of colchicum which is of very much value in acute gout, and that is the acetate of colchicum. Laville's Liquid used to be employed in England and elsewhere for years in preference to every other drug in these cases. None relieved so rapidly and completely. This was due to its containing, as the chief ingredient, this acetic extract of colchicum. This drug will certainly relieve, if carried far enough—it should purge sharply two or three times—in this manner the capillaries of the portal circulation are unloaded. To assist in this effect other drugs can be added. Loomis's preparation before mentioned contains also aloes, ipecac, and calomel. Dr. Loomis suggested the following gout pill:  $\mathcal{R}$ . Ext. colchici acetici; ext. aloë; pulv. ipecac.; hydrarg. chlor. mit.  $\text{āā}$  gr. i; ext. nucis vom., gr.  $\frac{1}{4}$  ad  $\frac{1}{2}$ . M. Sig. Ft. pil. No. i. To be taken every four hours, until it purges.

These pills may be carried about and employed at the first sign of an attack; they will often abort it.

After the attack is over, the real treatment begins. Medicines are of no avail. Iron does harm. Cod liver oil is not usually well borne.

Our dependence is on diet and exercise. On the question of diet the profession is divided. One-half say, Give the starches and no meats; the others, No starches, but green vegetables and meat. Dr. Loomis believes it makes but little difference, and employs in his own cases a mixed diet; but it must be very sparing, attention being directed to the thorough assimilation of all that is eaten.

To achieve this purpose the patient must be half starved; he should always rise from the table hungry. His wines and his high living should be stopped. If for any reason stimulants should be required, spirits is the best form to use. Active exercise in the open air is also of vital importance. He would advise this patient on recovery to become a cow boy.

#### **Tonic Effects of *Lathyrus Sativus*.**

THE plant called sometimes the "white vetch," the scientific name of which is *Lathyrus sativus*, has long been known to be capable of producing serious toxic symptoms both in the human subject and in cattle, when used for a prolonged period as food. This condition, which is termed "lathyrismus," has recently been studied by Dr. S. SUCHARD, who has collected a large number of cases, which have been published from time to time, some of them as early as the seventeenth century. In the human subject the chief effects produced are on the muscles of the lower extremities, especially on those below the knee. Horses which have been fed on the plant for a considerable period drop

while performing the lightest work, in consequence of paralysis of the hinder extremities, and in many cases death has followed from bilateral paralysis of the laryngeal recurrent nerves and consequent asphyxia. This laryngeal affection does not occur in the human subject, and death very rarely takes place. Cantani, of Naples, has reported a number of cases in which he examined the muscles very carefully, and noted that the adductors were far less affected than the abductors. The muscles of the face, neck, trunk, and upper extremities were not affected at all, only those of the lower extremities. The cutaneous sensibility was not even affected even in the legs, and there was no retardation of the perception of an irritant; the reflexes also were good. The descending galvanic current produced slight contractions, but only when the circuit was closed. These contractions were weaker on the right side than on the left, and weaker also in the flexors than in the extensors. With the ascending current no contractions were obtained either on closing or on opening the circuit. A fragment of muscle excised and examined microscopically showed a diminution in the transverse markings, and several minute fat globules were visible. In other cases, incontinence of urine has been frequently noted, and in some reported by Giorgieri the tendon reflexes were increased. Proust believes that there is first produced a transverse myelitis, or a hemorrhage of the spinal cord, leading to secondary degeneration of the posterior columns. If so, this must be transitory, as patients generally get well, or, at all events, better, in time, and where post-mortem examinations have been obtained no indications of this spinal cord affection have been found. A. Strümpell believes that the

lateral columns must be affected, the general symptoms corresponding very closely with those of the so-called spastic spinal paralysis. Several attempts have been made by Teilleux, Bourlier, and Astier to isolate the toxic principle. The last named observer obtained from the seeds by Stats's method an alkaline volatile liquid body, which produced all the effects of the alkaloid itself. According to him, this, being volatile, is not present in preparations such as pressed cakes made at a high temperature, and these are found not to be poisonous. If, however, such cakes are prepared at low temperatures, they exhibit toxic properties,—a circumstance which is explained by their retention of the toxic principle, which, being volatile, is driven off when a high temperature is used.—*Lancet*.

**The Relation between Pancreatic Action on the Albuminoids and the Quantity of Indican in the Urine.**

M. DASTRE (*Revue des Sci. Méd.*) reports an article of G. Pisenti (*Archivio per le Scienze Mediche*), which is formulated as follows:

It is known that indican which colors the urine is formed with the introduction of indol into or with its formation in the organism, and that the putrefaction of organic materials in the intestine is also a source of indol; the latter is reabsorbed in the last portions of the digestive tract. On the other hand, indol is, according to Solkowski, in a certain relation with the pancreatic peptones, the putrefaction of which produces relatively a greater proportion than other albuminoids.

The author has been led to think, from this chain of reasoning, that the physiological experiments and pathological affections which would reduce and enfeeble the pancreatic reaction

should diminish at the same time the amount of indican in the urine. Such results may be expected if a pancreatic fistula is established, or when Wirsung's duct is abolished. Pisenti determines first the average quantity of indican in the urine, in correspondence to a given regimen; then he finds whether this quantity is diminished in a dog which has been submitted to a pancreatic operation. He found that a dog which weighed seven kilos furnished from eleven to nineteen milligrammes of indican, as determined by Salkowski's colorimeter. After the operation this quantity was lowered to 4.84 milligrammes. This result confirms the author's view *a priori*.

It is added that the diminution is preceded by a temporary augmentation consecutive upon the operation (partial peritonitis?); the re-establishment of the pancreatic flow augments again the amount of indican in the urine.—*New York Medical Journal*.

**On a New Point in the Physiology of Respiration.**

LUCIEN DENIAN (*Union Médicale*) makes a general review of the current theories on the expulsion of carbon dioxide from the lungs, which may be formulated as follows:

The obscure point of the mechanism of exhalation of carbon dioxide was interpreted by Paul Bert on the hypothesis that the fact is due to a chemical phenomenon, or phenomenon of dissociation. Paul Bert's theory was accepted by Robin and Verdeil; they even invented an imaginary pneumatic acid, which was supposed to replace the carbon dioxide in its hypothetical combinations in the blood serum. The pneumatic-acid theory, having found no real ground, was soon abandoned. Today the functions of pneumatic acid is attributed to oxyhæmoglobin.

Recently Dupont advanced the theory of elective action, or of the physiological property of the pulmonary epithelial cell to select, separate, and eliminate as the object of its secretion the molecule of carbon dioxide, as other epithelial cells select, separate, and eliminate the molecule of glycogen, albumin, water, etc. The more recent theory of Von Fleischl seems to the author to give the natural and direct solution of the problem. Von Fleischl attributes the expulsion of carbon dioxide, its rapid dialysis through the vasculo-alveolar epithelium, to the brisk liberation of this acid from the solution in which it is contained, caused by the stroke of the heart-beat communicated to the lungs. Von Fleischl sees in the fact the simple physical phenomenon which is identical with that observed on exposing to suction a liquid holding a gas in solution. The external suction causes a gradual liberation of the gas in solution, but a simple percussion communicated to the vase containing this solution under the same suction suffices to produce an immediate liberation of the whole dissolved gas. The quantity of gas so discharged is a hundred times greater for the same suction and the same time.

The interpretation by the German physiologist of the mechanism by which carbon dioxide is set free from the blood serum, Denian further states, is of the highest importance in understanding the rapid discharge of this gas in the atmosphere of the pulmonary vessels. According to Von Fleischl's theory, the rapid separation of the serum and carbon dioxide is caused by the stroke of the heart communicated at each systole to the ramifications of the pulmonary veins holding the gaseous solution. A diminished pressure results after the first stroke, and the phenomenon is completed by the alternate dilatations and

contractions of the heart, and also by the play of the thoracic wall. The importance of the view advanced is evident, the author alleges, though this physiological fact may be due to a more complex mechanism. If it is accepted that the heart shares in the expulsion of the carbon dioxide, it is further said, the enfeeblement of the heart muscle must now be of double importance in the genesis of cyanosis. The author finally remarks the comparative anatomy and physiology furnish some arguments to sustain the idea.—*Ibid.*

#### Test for Blood.

A SIMPLE test for blood, and easy of application, is made by the addition of tincture of guaiac and ozonized ether to a weak solution of blood, when a bright blue color is produced. If a drop of blood be mixed with one-half ounce of distilled water, upon the addition of one or two drops of tincture of guaiac a cloudy precipitate of the resin appears, and the solution has a faint tint. If to this solution one drop of an ethereal solution of hydrogen peroxide is added, a blue tint appears, which, upon a few minutes' exposure, gradually deepens. This test is very valuable for minute quantities of blood, and Dr. Day, of Geelong, succeeded in obtaining sixty impressions from a stain upon cloth where the microscope failed to show any blood.—*Coll. and Clin. Record.*

#### DISEASES OF THE NERVOUS SYSTEM.

##### Perron on a New Mode of Cutaneous Revulsion.

SOME time since the author had under his care a patient apparently afflicted by some incipient medullary disease in which he had ineffectually tried the bromides, antipyrine and mild revulsants, such as the tincture of iodine and sinapisms. The patient would not



submit to the actual cautery, and the medical attendant had not the apparatus for employing the spray of the chloride of methyl.

With a wad of linen moistened with phenic acid (crystallized phenic acid and water equal parts liquefied by heat), brisk friction was employed over the spine in the dorsal, lumbar and sacral regions, covering an area equal to about a square foot. The immediate pain produced was very slight, and in a few moments an undoubted superficial anæsthesia came on, accompanied by a feeling of mild smarting. About thirty seconds after the friction the patient experienced a vague sensation along the spine, a marked degree of muscular weakness, and, what is most remarkable, noises and dizziness in the head and tingling sensations in the finger tips. These various feelings were so pronounced that the patient had to sit down lest he fall. This state was very transitory and after a few minutes disappeared, leaving the back simply hot and painful for some hours, after which the active smarting disappeared. The skin was left congested and very sensitive under a tanned and parchment-like epidermis. This state of things lasted about twelve days, when the epidermis became detached in shreds resembling gold-beater's skin, leaving exposed a newly formed pellicle. At no time were there crusts, serosity or cracks. In spite of the re-formation of the epidermis the skin remained for three weeks thick, sensitive, red and easily rendered hyperæmic by friction, proving that the revulsion still persisted. During this time the patient's condition had improved wonderfully.

During the first few days the spinal and sciatic pains lessened, to disappear entirely later. The walk and finer movements of the lower extremities,

before hesitating and deficient, became firm and normal. A sort of genital pruritus from which the patient suffered, and which aggravated the spinal pains, also disappeared. In short, the revulsion, by its intensity and continuity, radically removed the hyperæmia of the cord. At the request of the patient the application was repeated with the result of producing the same train of nervous phenomena.

In another patient, subject to a general irritability of the cord, a similar application produced muscular depression, tingling of the extremities, vertigo, and tinnitus, with slight pallor of the face. Both subjects were adults of good morale and not emotional.

The almost instantaneous action of phenic acid cannot be attributed to cauterization, because that effect is not immediate, nor are any similar effects produced by the mineral acids, sulphuric or nitric, although they are more energetic and corrosive. The nervous action of phenic acid upon the skin is constant, as any one who has immersed his hands in a carbolic solution can testify.

Phenic acid then, aside from its caustic effect, seems to have a special action upon nerve terminations, and when applied to areas supplied by the posterior spinal nerves, through these nerves and through the posterior tracts of the cord, exerts its special action also upon the brain. The simplicity of the application, the pain so bearable and of such short duration from phenic acid, make it a revulsive of great promise in all diseases of the spinal cord, in arthropathies, and even in affections of intrathoracic organs.

It will be remembered that Verneuil has lately employed a spray of phenic acid with great success in the formative stage of anthrax and furuncles. It

allays the pain, sometimes aborts the process, and always ameliorates the pathological condition. This beneficial action the author attributes not to the antiseptic or refrigerant action of the spray, but to the effect of the remedy upon the nerves of the part.—*Gaz. Hebdom. des Sci. Méd. de Bordeaux.—Medical Analectic.*

### Paralysis.

Pilocarpin, gr. 1-10, subcutaneously, two or three times a week. In alcoholic paralysis.

℞. Extract nucis vomicæ, gr. v; ext. gentianæ, gr. 80. Divide into 20 pills, one night and morning. In alcoholic paralysis.

℞. Tinct. cantharidis, dr. iiss; tinct. nucis vomicæ, dr. iiss; aq. dest. ad., oz. ij. One teaspoonful night and morning. In paraplegia.

℞. Ext. ergotæ, fl. dr. iiss; aq. dest. ad., oz. ij. One teaspoonful three times a day. In congestive and menstrual paralysis.

℞. Phosphori, gr. ij; ol. morrhuæ, oz. vj. One teaspoonful after each meal. In general paralysis.

℞. Liq. strychniæ P. B., dr. iss; syr. limonis, dr. ij; aq. dest. ad., oz. ij. One teaspoonful three times a day. In general and facial paralysis.

℞. Argenti nitratis, gr. vij; ext. nucis vomicæ, gr. xij. Divide into 24 pills, one after each meal. In locomotor ataxia.

℞. Argenti nitratis; ext. belladonnæ, āā gr. vij; ext. gentianæ q. s. to make 24 pills. One after each meal. In locomotor ataxia.

℞. Tinct. ferri perchloridi; tinct. nucis vomicæ; acid. phosph. dil.; syr. simpl., āā oz. j. A teaspoonful in water before each meal. In hemiplegia and locomotor ataxia.

℞. Zinci phosphidi, gr. iv; ext.

nucis vomicæ, gr. vi; ext. gentianæ, gr. xxiv. Divide into 12 pills, one night and morning. In hysterical paralysis.

℞. Ext. physostigmatis, gr. ij; ext. gentianæ, ℥ ij. Divide into 20 pills, one three times a day. In general paralysis, and paralysis of the insane.

℞. Potass. iodidi, gr. j; magnes. sulphat, dr. ij; aq. chloroformi, oz. viij. Two tablespoonfuls night and morning. In lead paralysis.

Hyoscyamin, gr. 1-20, subcutaneously, once a day. In general paralysis of the insane.

℞. Sodii iodidi, dr. iiss; tinct. cinchon, dr. v; ad. des. ad., oz. viij. One tablespoonful three times a day. In paralysis following syphilis.—*Med. World.*

### ••••• DIGESTIVE TRACT.

#### Medicines Excreted by the Bile.

PREVOST and BINET (*Revue Méd. de la Suisse Romande*) made biliary fistulæ in two dogs, and investigated experimentally the action of drugs upon the secretion of bile, and their excretion by the bile. Their results are as follows: 1. Although fat is not decomposed on account of the absence of bile from the intestinal canal, the animals experimented on continued to be well nourished. 2. The quantity of bile secreted increases considerably in proportion to the food ingested, especially when the latter is rich in peptones, less when it is rich in fat. Ingestion of water increases the secretion of bile if the quantity of water exceeds seven fluid ounces. Agents which increase the secretion of bile are: gall itself in its natural state or in the form of a glycerine extract, bile salts, urea, oil of turpentine, terpinol, potash, benzoin, salicylate of soda, salol, muscarin. The following increase the secretion only in an insignificant degree: bicarbonate of

soda, sulphate of soda, chloride of sodium, Carlsbad salts, propylamine, antipyrine, aloes, cathartic acid, rhubarb, hydrastis canadensis, ipecacuanha. The secretion of bile is lessened by iodide of potash, calomel, iron, copper, atropine, strychnine. Phosphate of sodium, bromide of potash, chloride of lithium, corrosive sublimate, arseniate of sodium, alcohol, ether, glycerine, caffeine, pilocarpine, kairine, cytisin, sennâ, colombo—were without appreciable influence upon the secretion.

Of the agents ingested the following could be detected in the bile that escaped through the fistula: turpentine, terpine, terpinol, salicylic acid (also found after salol was given), bromide and iodide of potash, potash, arsenic, iron, lead, mercury (these three in traces), caffeine, fuchsin, cochineal, finally gall itself. The gall of dogs becomes of a more greenish hue after ox gall has been given, and smells then like ox gall. Moreover, glycolic acid can then be detected in dog's gall, although this is never found normally in the latter, but is always met with in ox gall. The following agents were not detectable in the bile: antipyrine, kairine, hippuric acid, strychnine, copper, lithium, urea.—*Wien. Med. Presse.*  
—*Medical and Surgical Reporter.*

#### Absorption of Water by the Colon and its Therapeutic Uses.

DR. COOK (*Weekly Medical Review*):

While using large injections of hot water to remove a fecal impaction located in the ascending colon, my attention was called to the rapid absorbing powers of the colon, and also the effect as a diuretic of water thus introduced in large quantities into the circulation.

This patient, to relieve intense pain, excited by the hard fecal mass, had

taken freely of morphia, and was thoroughly under its influence when I first saw him, a good condition in which to begin the treatment which I proposed, viz., the injection of water to soften the obstruction.

I threw into the colon about a gallon of water at a temperature of 115° F., and instructed the patient to retain it as long as possible. The next morning when I called, the patient in alarm informed me that the water had not yet passed away, and during the night he had had great trouble with his bladder, having to relieve it every hour. The quantity of urine passed during the night was almost equal to the water injected the evening before. The hot water had also the effect of relaxing the colon and relieving pain, he having no occasion to take more morphia during the night.

Having to repeat the injection several times before the obstruction was removed, I closely observed the results. Each time before repeating the injection, I gave a full dose of morphia to quiet peristalsis, and with this preparation the colon retained the water without pain or inconvenience to the patient. It was rapidly absorbed, and within eight or ten hours from three to five pints of urine would be passed, varying in proportion to the quantity of water used. The skin was moist, but no diaphoresis occurred.

Since that time I have had occasion very many times in my practice to use large injections of water in the colon for various diseased conditions, and have had abundant opportunity for observing a repetition of the facts stated in connection with the first case, in regard to the rapid absorption of a large quantity of water by the colon, and its immediate effect as a diuretic.

In these cases the colon was fre-

quently in an irritable condition, but with the aid of morphia the peristalsis could always be controlled and the intestine placed at rest when it was desirable to have the water retained. I have injected water into perfectly healthy colons to observe what quantity could be held without the use of morphia to quiet peristalsis, but never succeeded in having a quantity kept and absorbed that would materially affect the quantity of urine.

Subjects of chronic constipation, with atony of the colon, may retain a large quantity of water without morphia. In these the colon is already in a condition similar to a healthy one under the influence of morphia.

When we wish to place the colon at rest to retain and absorb water, it is best to give the morphia a half hour or an hour before injecting the water, though if the colon is very irritable it may require several doses, given at intervals during the preceding six or twelve hours. The injection should be made directly into the colon and not allowed to flow through the rectum by the use of the ordinary syringe. The best instrument for the purpose is a Wales' rectal bougie, introduced until the end rests in the sigmoid flexure, then with a syringe attached to the outer end, the colon can be filled without distending the rectum. The water should be made to flow very slowly; a fountain syringe is the best for the purpose.

The temperature that I have found most agreeable is from  $110^{\circ}$  to  $115^{\circ}$  F. The desirable position for the patient is on the back with the pelvis raised slightly. This position enables you, by percussion, to trace the water as it fills the colon, to tell when it reaches the cæcum, and the amount of distention. If there is no obstruction the water will

flow freely around the colon, which should be only moderately distended; usually from three to five pints can be used at an injection.

The normal colon is slow to respond to excitants, compared with the rectum, the latter being much the more sensitive part of the large intestine, having a nerve supply direct from the spinal cord. When the healthy rectum is distended, it responds quickly and expels its contents, and this excitation will be transmitted to the colon and cause it to act more promptly. But when the normal colon alone is distended by injection, it requires from fifteen to twenty minutes for peristalsis to be excited. This is the special reason for throwing the water directly into the colon when we want it retained.

After free diuresis is caused in this way in a healthy person, I have examined the urine to determine if the solids were increased during the twenty-four hours, but never found any increase in their amount, and reason would not indicate that there should be an increase in an individual perfectly healthy. Diluting the blood with an excess of water and increasing the blood pressure should not increase the waste products in it.

The introduction of a large quantity of water in this way into the circulation provides us with a certain non-irritating and non-stimulating diuretic, a therapeutic agent which we are often in great need of to wash out the kidneys and drain from the blood the poisonous excretions. The quantity of water which can be introduced at once through the colon into the system, is much greater than can be taken in any other way. Absorption is prompt and rapid, the blood is diluted with pure water, and the blood pressure greatly increased within a short time, conditions favoring



the flow of water out through the kidneys.

In acute febrile conditions, when the water is being rapidly taken from the system by the cutaneous and pulmonary evaporation, and the renal blood pressure is greatly lessened by the attraction of blood to the surface of the body, the kidneys often become inactive. In such cases free diuresis can be excited promptly by the introduction of water through the colon.

In cases of continued fever, when the tissues are being desiccated by the free evaporation, and emaciation is progressing rapidly under the influence of increased temperature, and only a small quantity of fluid can be taken by the stomach, great good can be done by conducting water freely through the colon into the circulation. The blood vessels are filled and the tissues again supplied with water, which will induce a free action of the kidneys, and also other glands of the body, and wash out the waste material, the result of rapid tissue change which takes place under a high temperature.

The most important therapeutic action from water used in the manner described, is in diseases of the kidneys, and in these it can surely be made of great use. In renal hyperæmia, when we scarcely dare to give a diuretic that is irritating or stimulating, and all diuretics, except pure water, are more or less irritating or stimulating to the kidneys, we can use pure water freely. It is safe and will filter through the Malpighian tufts, wash from the epithelial cells of the convoluted tubes the solids secreted there, and deplete the kidneys.

In acute and chronic parenchymatous nephritis, when the tubules are clogged with epithelial or waxy casts, the large quantity of water which can be made to

flow through the kidneys in a short time by this method, will wash out the casts, clear the kidneys, and make them much more useful. The water filters through the glomerules above the cast, and will readily displace it.

Water, when absorbed through the colon, enters the portal circulation, and, to reach the general circulation, has to pass through the hepatic capillary system. What effect the passage of a large quantity of water in this way would have on the liver, I cannot say, but would suggest that the effect might be beneficial in acute and chronic congestions of this organ.

#### DISEASES OF RESPIRATORY ORGANS.

##### The Treatment of Phthisis with Calomel.

DOCHMANN, in the *Therapeutische Monatshefte*, relates his experience with the use of calomel in phthisis. Administered in the first and at the beginning of the second stage, calomel improves the appetite, diminishes the cough and fever, and dispels the night sweats and the objective symptoms. At the end of the second and at the beginning of the third stage, it reduces the fever, checks or diminishes the diarrhea, and improves the general condition. Whether calomel has a specific action upon the local changes in the lungs or influences the life and development of the tubercle bacilli or checks the progress of the destructive process, only more extensive observations can determine. The following formulæ may be used:

℞. Hydrarg. chlorid. mitis, grs. x; pepsini, 3 j; tinct. opii, gtt. xxx.—M. ft. pulv.; dein adde; ext. phellandrii aquatic., q. s. ut ft. pil. No. 60.

℞. Hydrarg. chlorid. mitis, grs. x; pepsini, 3 j; ergotine (Bonjean's), grs. ij; ext. glycyrrhizæ q. s. ut ft. pil. No. 60.

For hemoptysis: ℞. Hydrarg. chlorid. mitis, grs. x; pepsini, 3 j; ext. hyos-

cyami, grs ix; ext. phellandrii aquatic., q. s. ut ft. pil. No. 60.

On the first day the patient takes six pills (two at intervals of two hours), on the second day five, on the third day four, and from the fourth day he takes two pills, thrice daily, throughout the period of treatment. Every fifth or sixth day, the calomel is intermitted for two or three days, during which time iodide of potassium may be given. The size of the first dose depends upon the fever; should the fever increase, the dose of calomel is increased to twelve to fourteen pills a day.—*Wien. Medizin. Presse.—Medical News.*

#### The Surgical Treatment of Nasal Catarrh.

AT the meeting of the American Rhinological Association, held in Cincinnati, Dr. A. B. THRASHER read a paper with the above title (*Medical Record*). He said there are forms of nasal catarrh that can only be benefited, and not cured, by medicinal treatment. When we have mechanical obstructions to the lumen of the nares of a hypertrophic, hyperplastic, or neoplastic character, surgery offers the most direct path to the removal of the difficulty. These are the cases of nasal catarrh which have passed from one doctor to another, have used all the advertised remedies, so called, and have at last concluded that nasal catarrh is incurable, and it is of no use to treat it.

Since the cavity of the nose is open to inspection, directly and indirectly, it is rather curious that surgeons have been so slow to invade this region. They will cut with impunity into the abdominal cavity and remove or examine the contained viscera; or open the thorax and tie an artery or evacuate an abscess; or even cut into the brain-box to elevate a depressed bone or remove a tumor, and yet stand with

folded hands and do nothing to check the symptoms caused by a neoplasm springing from the middle turbinate, or a hypertrophy at the pharyngeal vault. This is not so curious when physicians stop to think that the removal of a growth from the posterior middle turbinated body requires more manual dexterity and tactile skill than to open the abdomen, thorax, or even the cranium itself.

When a simple enlargement of the turbinated body is encountered, which it is desirable to reduce or remove, what is the best method of procedure? There are cases in which the application of a chemical caustic answers the purpose admirably well. The Woakes gouge or plough will do the work, and by the aid of cocaine will do it rapidly and painlessly.

In uncomplicated cases of chronic hypertrophic rhinitis the conditions to be met are: (a) obstructions to lumen of nares, and (b) abnormal conditions of mucous glands. The causal indications would at once suggest a removal of the redundant tissue. The means employed should look to the accomplishment of this end with the least resulting scar surface, so that the natural condition of the epithelial covering might be as nearly as possible simulated. To reach this result he had met with the most marked success in the use of the galvano-cautery knife. He first anæsthetizes the part with cocaine, then introduces the knife to the posterior part of the hypertrophy, turns the sharp edge towards the tissue to be cut, heats the knife white-hot, and cuts deeply, drawing the knife forward. The result is a deep linear scar in an antero-posterior direction through the hypertrophic tissue. He cuts deeply enough to destroy a portion of the submucous erectile tissue. When this cut heals

the result is a narrow linear scar, and by the natural contraction of the cicatricial tissue the surface becomes in time obliterated.—*Therapeutic Gazette.*

### DISEASES OF CIRCULATORY ORGANS.

#### Regulation of Fluid Ingesta in Cardiac Failure.

IN a paper on this subject, Dr. J. BARR says:

I have, at present, under my care in the Northern Hospital, a patient who was admitted some weeks ago suffering from great mitral constriction, free tricuspid, regurgitation with evidence of commencing stenosis, great enlargement and hardness of the liver from chronic congestion, large ascitic effusion, general venous turgescence, and urgent dyspnœa. On a dry diet the patient has markedly improved; there is no dyspnœa, the venous turgescence has disappeared, the ascites has lessened, and she is now able to move about the ward, and has the prospect of returning home fit for light household duties. This woman has been several times in another institution, where she was kept on a liquid diet, and as she thought that an excessively morbid interest was taken in her case, on each occasion when she considered that she was near her latter end, she fled home to save a post-mortem examination.

Every drop of liquid which is placed in the stomach, with the exception of part of that which passes away in the fæces, must pass through the right side of the heart, and all of this, except that which is exhaled by the lungs, must pass through the left side before it can be excreted. When, therefore, there is any mechanical obstruction to the passage of the blood through the heart, or, when the effective force of the heart is diminished, any increase in the amount of fluid in circulation must severely

handicap the central pump. The velocity of the blood depends on the effective force of the cardiac contractions, and on the mass to be moved, and is inversely as the sectional areas. It therefore follows that when you have got a weak heart and a great amount of blood in the vessels, the circulation becomes very languid, and in a given time comparatively little is presented to the excretory organs. By the use of cardiac tonics to improve the force of the heart's beat, and by reducing the supply of fluid, thus lessening the bulk of blood, we lessen the static condition, and increase the velocity of the circulation. The potential is converted into kinetic energy, there is a more rapid interchange of fluids between the blood and tissues, the hydration of the tissues is lessened, while the oxygen-carrying power of the blood and the oxidation of effete products are augmented, the congestion of all the internal organs is diminished, and their functional activity heightened.

When there is any marked cardiac failure, the quantity of fluid consumed should be restricted to the smallest possible amount, and, in a large number of cases, one pint of liquid, including the fluid portion of the food, will be found sufficient, while if there be any dropsy, the quantity may, in many cases, be further reduced.—*Provinc. Med. Jour.*

### DISEASES OF THE URINARY ORGANS.

#### Albuminuria—Its Relation to Life Insurance.

DR. JAMES TYSON (*Medical Record*) says:

No system of life insurance is perfect which does not include those who are apparently healthy and those who are not. Certain applicants presenting themselves for examination for life insurance are wrongfully rejected, because of the presence of albumin in the urine.

After this introduction the writer went on to mention the different terms used to indicate the particular forms of albuminuria under consideration, and gave his decided preference to the term "functional." Two illustrative cases, which he considered "safe risks" for life insurance companies, were presented. One of the histories was that of a young man, who had been under the observation of many physicians, among them Dr. Stewart, of Edinburg, the various observations extending over several years. The other, a less favorable family history, and an old man. In both there was final disappearance of albumin. Dr. Tyson went on to sketch the conditions which if observed by competent and well trained observers, if it were always possible to get such, would enable the companies to save these risks. These are:

1. The applicant must in all other respects present the signs of good health.

2. The albuminuria must be unaccompanied by tube-casts, however perfect may be the health in other respects; albumin and tube-cast conjoined always meaning structural changes.

3. The specific gravity of the urine, that is, the "real" specific gravity (that of the quantity for the twenty-four hours), should not be lower than 1.015-1.025. Great care must be taken to secure the "real" specific gravity, as it would be unfair to reject the candidate on account of the specific gravity of a single specimen.

4. The signs of hypertrophy of the left ventricle, and the existence of high vascular tension associated with albumin, would exclude the candidate.

5. The age of the applicant is a highly important consideration. It is doubtful whether any person forty years of age with functional albuminuria should be accepted, unless at least he has been

long under the observation of a competent and conscientious examiner.

6. The presence of true gout in any case should decide against the person, because gout is always, sooner or later, followed by interstitial nephritis.

Finally, retinal changes such as are associated with nephritis, should exclude the applicant. In conclusion, the writer does not claim, of course, that we are in a position to put these conditions in operation, but believes, as we are enabled gradually to secure the desired education and training in medical examiners, the applications of these conditions will be possible. The absence of the albumin from the urine passed on rising in the morning is an important aid in the diagnosis of functional albuminuria, but not an essential one.

#### Codia in Diabetes.

BARTHOLOMÉ NOVARO (*Revista Argentina de Ciencias Médicas*):

A patient, in whom large quantities of sugar persisted in the urine, despite the employment of all known remedies, was given codia, which has been so highly recommended by Lauder Brunton in such cases, and the effect resulting on its use was apparent immediately. After its use for one week thirst, hunger and excretion of sugar had ceased. The improvement continued in spite of the discontinuance of the drug, and on the appearance of a relapse after several months the symptoms again entirely disappeared after three days' use of large doses of the codia. The author adopted this mode of treatment after this result in twelve other cases of diabetes mellitus, with the following result: Cured, 7; improved, 2; not benefited, 1; died, 2. Of the two last named cases, the one was the most severe case of diabetes he had ever



seen, while the other, while really in a fair way of recovery, succumbed to a severe pneumonia.

The mode of treatment was, in general, about the following: One grm. of codia was directed to be divided into twenty pills, of which the patient was given three the first day. If these were well tolerated, without headache or over-much sleep, etc., he was directed to take one more pill the following day, and if the tolerance continued a second pill was added on the third day, so that the patient rapidly advanced to the daily dose of 0.25 grm., the equivalent of five pills. This is about the general average quantity which one employs in the subsequent days, if tolerated by the patient and according to the symptoms of the disease, and above all being regulated by the quantity of the urine and the amount of sugar it contains, and particularly whether this be increased or decreased.

The general dose of codia gives the following results: 1. The sugar disappears completely from the urine; coincidentally we have cessation of polyuria, thirst, etc., and in consequence a complete improvement of the patient, who regards himself as radically cured. 2. The sugar in the urine disappears relatively, or absolutely, according to the quantity of the secretion that is eliminated by the patient in the twenty-four hours. The improvement is not so perceptible, even when pretty well marked. 3. The sugar in the urine is not at all lessened; neither is the quantity of the urine reduced. The patient continues the use of the drug.

In the first case, if the patient is cured in a few days, the author being in doubt as to the permanency of the cure, continues the treatment for another two or three weeks. Should then no more sugar appear, the number of

pills daily ingested is reduced by one until one pill is taken per diem. A little later this is reduced to one pill in two, three to seven days, so that only one will be taken weekly, and the drug is finally dispensed with.

In the second case, when only usual improvement is attained with the general dose, one increases each week by one the daily number of pills. Great care, however, must be paid to the tolerance with which the patient bears the remedy. In rare cases only is one obliged to resort to the daily administration of ten pills (50 cgrm. codia), for generally the sugar disappears before this, or some symptoms of intolerance appear which will not admit of farther increase of the drug. The latter appearances were only once manifested to the author. If now the patient has completely improved, one continues, as in the first instance, and combines the codia with other remedies, among which we enumerate Turkish baths, massage, gymnastics, alkaline, mineral waters and an animal diet.

In the third case, if the patient does absolutely not improve, one increases the dose of the codia as long as a tolerance for it remains. Should, despite this, no benefit accrue, one may entertain the conviction that the remedy will here remain without effect, a conviction that will be the sadder because there is no other remedy which will then be of benefit.

The physiological action of codia in diabetes mellitus cannot be positively stated. But it is highly probable that it checks any increase in the production of sugar in the human economy through a calming of the glycogenic power, aided by the nervous system. Even if codia does not cure all diabetics to whom it is given, it still cures many, and almost every one is improved by it.

# THE AMERICAN MEDICAL DIGEST.

## SURGERY.

### FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

#### Fracture of the Clavicle.

DR. ARTHUR E. SPOHN (*Medical and Surgical Reporter*):

The chest, viewed from any side, has the appearance of an irregular cone; the diameters increasing from above downwards to a plane corresponding with the centre of the sternum. Upon this cone the upper extremities, as it were, hang, through the medium of the scapula and clavicle; which, being bound together by ligaments, rest on the chest like a collar, held in position by the various muscles; the only fixed point being the sterno-clavicular articulation. Fixed at this point, the clavicle on each side serves as a brace to hold the shoulder joint in position; and, when fractured, the anterior support of that joint is lost, which allows it to droop and be carried downwards, forwards and towards the chest; because the scapula rests on a surface pressing diagonally downwards and forwards, while the broken clavicle, which before held the joint in position, now allows the joint to fall in towards the chest, the ends of the bones generally overlapping. Pressure against the shoulder

joint backwards will carry the scapula back over the same surface upwards and backwards, when the broken bone may easily be replaced; but, from its peculiar position, it is almost impossible to retain it in such a position as to prevent more or less deformity, and at the same time to cause the patient much inconvenience.

The device I have lately adopted is to adjust a splint which shall replace the broken clavicle and restore the lost support to the shoulder joint. This splint I have called the subclavicular or anterior chest-splint. (Fig. 1.) It is simply a piece of wood or sole leather made to fit the anterior surface of the chest just below the clavicular bones, two inches wide, and long enough to reach the outer side of each arm. (See Fig. 2.) This splint should be well padded and covered with strong muslin. Two pads are now made to place under each end of the splint, to fit into what I have chosen to call the lateral triangular space of the chest. Viewing the articulated skeleton from the front, the arms hanging down, there is on each side a triangular space, bounded above by the clavicle, acromion and coracoid processes; externally, the head and upper third of the humerus; internally, by a line drawn from the

centre of the clavicle to the junction of the upper and middle thirds of the humerus. Crossing this space, which, in cases of fracture, draws the joint forwards, downwards, and towards the chest, we have the pectoralis minor muscle.

This space does not show well on the body, but can be distinctly outlined by a little pressure. Firm pressure, directed backwards over a pad in this space, while the arm is in a sling, will thoroughly fix the shoulder joint and carry it upwards, outwards, and backwards, thus meeting every indication in treating fractures of the clavicle; because the scapula rests upon a surface directed downwards, forwards, and out-

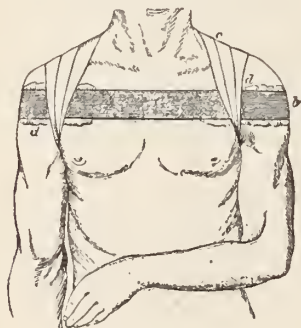


Fig. 1.

wards, which course it takes when the anterior support (clavicle) is removed; while firm backward pressure will reverse things and force the scapula over the same surface upwards, backwards, and towards the spine, which must raise the shoulder-joint and increase the space between the acromion process and clavicular notch of the sternum; so that, were the clavicle entirely removed, the shoulder would remain in proper position as long as this support is kept up.

When fractured, the clavicle is practically removed, even worse, and distorted. The subclavicular or anterior chest-splint replaces the broken clavicle;

also presses the pad into the triangular space above described, giving the required support.

The pad should be thicker in the middle than at either end (see Fig. 2), so that it will press well against the outer end of the clavicle, coracoid and



Fig. 2.

acromion processes, and sink in, as it were, between the upper part of the arm and side of the chest, thus forcing the shoulder joint outwards. The pad should now be firmly stitched to the splint and a figure-of-eight bandage applied, first putting a little cotton, or, better, a small pad under each arm; place the arm in a sling, when the dressing is complete. (Fig. 1, c, d.)

In order to appreciate this dressing, see Fig. 3, showing the relation of the figure-of-eight bandage to the scapulæ. The surface on which the scapula rests is directed upwards and backwards; consequently this bandage carries that bone upwards and backwards, elevating the shoulder joint; while the anterior

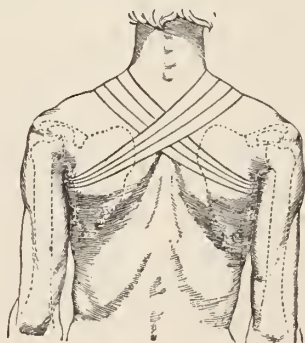


Fig. 3.

splint, thus held in position resting on an inclined plane, supports the front of the shoulder and restores, as it were, the broken clavicle, while the patient is put to very little inconvenience; he can

walk about or lie down with perfect safety. The dressings must be thoroughly stitched together.

I have, during the past few months, treated several cases in this manner, and



Fig. 4.

with better success than I ever saw by other appliances; sometimes simply placing the splint under a tight fitting vest (Fig. 4), with the arm in a sling, and the vest sewed or pinned to splint.

#### Mode of Fixation of the Scapula and Fracture of the Coracoid Process.

At a meeting of the Royal Medical and Chirurgical Society, Mr. ABURTHNOT LANE read a paper on this subject. He showed that in extreme flexion of the shoulder joint the scapula undergoes a movement of rotation upon an axis whose general direction is obliquely inwards and forwards, and that this rotation is abruptly limited by the impact of the coracoid process upon the under surface of the clavicle. He illustrated the manner in which the frequent performance of this movement under the influence of considerable strain determines in such laborers the development of a coraco-clavicular articulation, the mechanism of which he had already described in the Guy's Hospital Reports, 1886. He then referred to the very great difficulty which is usually experienced in breaking down adhesions between the humerus or

scapula, these adhesions being in most cases the result of inflammation. The difficulty arose from the inability to fix the scapula. He showed that the scapula can be firmly fixed by flexing the shoulder joint completely, the coracoid process and clavicle being held forcibly in apposition, and that when the scapula is so fixed against the clavicle the humerus can be rotated forcibly upon its own axis, and can be completely adducted and then abducted very considerably without the humerus being accompanied in its movements by the scapula. In this manner all adhesions between the two bones can be readily broken down. He then criticized the statements made by surgical writers that the coracoid process is always broken by direct violence, and referred to two cases quoted by the author of the article on "Fractures of the Upper extremity," in Holmes' System, to prove the truth of the above assertion, which, he said, showed that the very reverse was true in this case, for the reason that when the shoulder joint is completely flexed it is practically impossible to fracture the coracoid process by direct violence. He also referred to the extreme inaccuracy of published statistics of the relative frequency of fractures of the several bones, and particularly of the coracoid process and acromion. He had never found a single instance of fracture of the coracoid process in the dissecting room, but he had observed that fracture of the acromion occurred more frequently than fracture of any other bone in the body. Mr. W. Adams agreed with the anatomical and physiological conclusions of the author, but he could not concur with the surgical conclusions, for in an ankylosed joint it would not be possible for the joint to be flexed. The difficulty of fixing the scapula was



not great. He had never found any difficulty himself in fixing the joint firmly. There often appeared to be plenty of movement, but this was of the scapula, and not really in the joint. In a few difficult cases the ankylosis could not be broken down, and he should recommend that such cases be left alone. Mr. Clement Lucas said it was new to him that the coracoid process could be fractured in the way Mr. Lane had described, and the explanation was very easy to understand. He agreed that fracture of the acromion process was more frequent than was commonly supposed. Attempts at flexion of the shoulder would inevitably bring the coracoid process into contact with the clavicle, and so afford the necessary *point d'appui*. Mr. Howard Marsh thought the explanation of fracture of the coracoid as likely to be the true one. He considered that the difficulties of fixing the shoulder joint were not so great as the author had inferred. In breaking down adhesions the use of anæsthetics was most desirable. If the joint be really fixed as determined under anæsthesia, he should advise that the case be left alone, for any temporary improvement was most likely to be followed by increased ankylosis and increase of the joint disease. The cromion may be apparently detached by the chronic rheumatic joint disease. Mr. Lane considered that the changes in the acromion were more frequently due to injury than to a rheumatic process.—*Lancet*.

#### **Treatment of Fractures of the Maxillæ with Modified Interdental Splint.**

DR. WILLIAM CARR, New York, gave a clinic on the treatment of fracture of the maxillæ with modified interdental splint, before the Section in Dental and Oral Surgery.

The majority of fractures of the inferior maxilla occur in the body rarely at the symphysis menti, but usually directly anterior or posterior to the mental foramen. A noticeable fact in connection with these fractures is that the victim rarely applies for treatment for several days succeeding the injury. He realizes that some of his teeth are loosened, and also that he is painfully bruised, but does not seek surgical aid until he becomes alarmed by the increased inflammatory condition of the parts. There is but little difficulty in establishing a correct diagnosis, as usually the following symptoms are present,—great pain in the effort to open and close the mouth, swelling, crepitus, inflammation, inability to masticate, and marked irregularity of the teeth.

*Treatment.*—It is identical with that of other fractures—namely, to bring the parts into apposition and retain them firmly until ossification is completed. For treatment of fractures of the maxillæ there is nothing superior to the interdental splint. When properly adjusted, speedy union may be secured without deformity of the jaw or irregularity of the teeth. Before taking the impression a careful examination of the parts should be made. Loose teeth and spiculæ of bone should be removed, and the parts should then be brought as nearly as possible to their normal position. An accurate impression should be made with impression-compound or wax. The material used should be as warm as the patient can bear it, in order to prevent unnecessary pain, and also to prevent further displacement of the parts. The splint is made of vulcanite, and covers all the teeth of the lower jaw, and all the teeth posterior to the canine in the upper jaw, leaving a space of about three or four lines through which

the patient may receive nourishment. Small holes are drilled in the splint over the grinding surface of each molar for the purpose of ascertaining whether its adjustment is proper.

The splint should first be adjusted to the sound jaw, then gently bring the fractured jaw into position until it has passed about two-thirds of the length of the teeth, then with a quick, firm motion bring the parts into position. Next apply a four-tail bandage, which should be retained from three to five days; after this time, in the majority of cases, it may with safety be removed during the day, but should be replaced at night until the removal of the splint. The patient should be furnished with an ordinary rubber syringe, and instructed to keep the mouth thoroughly cleansed. For disinfectants the author uses peroxide of hydrogen, three per cent. solution, or a solution of bisulphate of sodium in the proportion of 3 i to 3 i of water.

In ordinary cases the splint should be retained for three or four weeks, according to the physical condition of the patient, unless unforeseen complications should arise. The application of the splint, combined with thorough cleanliness, will be all the treatment required.

The advantages, besides those previously stated, are that the patient experiences but little pain and inconvenience, and can, as a rule, attend to his business almost immediately after the splint is applied.

It is not necessary that all the teeth, nor, indeed, that any should be present in the mouth in order to make this splint serve its purpose. In the first case the rubber can be made to take the place of the missing teeth, and in the latter case a perfect adaptation of the splint to the alveolar ridges can be secured, and will be found to keep the parts in perfect apposition.

Should it be deemed advisable to place a splint in position within an hour or two after seeing the case, one can be constructed entirely of ordinary gutta-percha, with just enough wire inside to stiffen it. Dr. Carr demonstrated this last method; it is very simple, and can be made by any surgeon.—*Ther. Gaz.*

#### Toxic Effects of Iodoform, Cutaneous and Systemic.

Dr. R. W. TAYLOR, Surgeon to the Charity Hospital, New York, read a paper on this subject before the American Dermatological Association, at its eleventh annual meeting. The following is a summary of his conclusions:

*A. Its use as indicated:* 1. On fresh wounds. 2. On diseased surfaces—gangrenous, chancroidal, phagedenic, syphilitic, tuberculous—and on those slow to take on healthy granulation. 3. On the surface of necrosed bone.

*B. Its use is contra-indicated:* 1. On freshly cut bone. 2. On granulating surfaces. 3. In cases in which it is known or is found to produce toxic effects.

*C. Modes of use:* 1. It should be dusted on the surface lightly and sparingly. 2. In wound cavities or in the natural cavities as small a quantity as possible should be employed; in the former it is preferable to use it in the form of gauze. 3. It should never be rubbed in with the finger. 4. Its application should be renewed as infrequently as possible. 5. Such aids to absorption as tightly fitting bandages and impermeable dressings should not be used. 6. Its use should be discontinued as soon as healthy granulations appear. 7. It should not be used coincidentally with other antiseptics, carbolic acid especially (Mosetig-Moorhof). 8. It should be used with great caution in the young and the old; in anæmic and neurotic persons,

and those suffering from weak heart or Bright's disease; also in very fat and flabby subjects. 9. Should toxic symptoms appear, the iodoform dressing must be promptly and thoroughly removed.

*D.* The occurrence of anomalous forms of persistent or recurrent eczema in persons who handle or in any way come in contact with the drug, or who use it as an ointment or in suppositories in the vagina or rectum, should cause the physician to suspect the agent as the possible cause.

*E.* It is most important that the practitioner should exercise a watchful care over all patients for whom he prescribes this agent, and should he observe morbid symptoms, however mild, pointing to the brain, heart or lungs, or a tendency to loss of appetite or emaciation, he should cause the discontinuance of its use at once.

*F.* This treatment of the skin manifestations is similar in all respects to that of the simple eruptions of the same varieties. Systemic poisoning should be treated symptomatically, since we have no specific.—*N. Y. Med. Journal.*

#### Treatment of Epistaxis.

AFTER some trying experiences with troublesome cases of nose-bleed, I took a hint from the practice of a veterinary surgeon which has proved more satisfactory at my hands than plugging the anterior and posterior nares. As he treated a horse, so I treated my patient.

I took a lump of cotton, tied a thread around it, and passed it with a probe back into the nostril, holding the thread in my hand. I pushed it up so far beyond the bleeding point that the blood ran out of the front of nose, and then drew it down with the string until it covered the bleeding spot. Then the bleeding was controlled. I have used

this in several cases, and it has met my needs. I give it for what it is worth, and in the hope that it may help some physician when in doubt what to do.—*Med. and Surg. Reporter.*

#### The Modern Treatment of Strangulated Hernia.

DR. T. HERRING BURCHARD, in a paper read before the New York Academy of Medicine, said that his paper would be a review of the modern treatment of strangulated hernia, as he had nothing new to offer. Some of the facts brought out by modern experience with strangulated hernia were cited. There was now more general recognition, on the part of the profession, of the value of time in the early stage of strangulation. He contended against the habit on the part of some to procrastinate until important pathological changes had taken place in the strangulated tissues. Taxis should be employed with care, and not persisted in for an undue length of time; twenty to thirty minutes was usually long enough. When it had proven useless, an operation should be resorted to. Antisepsis was, of course, to be observed. Regarding the treatment of the sac, free and impartial judgment was required; but no operation for strangulated hernia could be regarded as properly performed which did not finally close the hernial canal. By this means we obtained isolation of the peritoneal cavity, prevented inflammation extending to it, and offered the patient a chance for permanent relief against hernia. Dr. Burchard gave a brief review of seven cases of strangulated hernia upon which he had operated; five of these were in males and two in females. In combating stercoraceous vomiting and collapse, he had found nothing equal to the stomach douche with hot water. As a factor in the treat-

ment of acute peritonitis, he mentioned the fact that concealed hernia, as the cause of such peritonitis, was apt to be overlooked.—*Med. and Surg. Reporter.*

#### Strangulated Hernia in Children.

DR. A. G. GERSTER, in speaking on this subject, said he would consider only those points in the operation which differed from the operation in adults. The difference of treatment in the two classes of cases related to the treatment of the wound. It was of the greatest importance to avoid inflammation of the wound in children. It had been suggested by Dr. Weir and Dr. Abbe that the ordinary operation for hernia would be the better if the external wound were not closed, but was allowed to heal by granulation; the idea being, that by the formation of a dense and massive external scar, intra-abdominal pressure would be resisted. In cases of grown persons, Dr. Gerster did not share their opinion, but in cases of children he would certainly advocate the open treatment of the wound. His opinion was based on the fact that in all the cases which had come under his observation, five in number, in which the wound had been sutured primarily, union of the external wound did not take place. Soiling of the wound by the clothes, urine and fæcal matter could not be avoided. He believed that it was, therefore, better to pack the external wound with iodoform gauze and treat it as an open wound, just as one would treat a wound in the vicinity of any of the natural orifices.

Dr. Gerster related one case in particular, because of an error in diagnosis which had been committed. The child, two years of age, had a fluctuating tumor of the scrotum which had existed for some time, but which could not be reduced by taxis. The tumor was trans-

lucent, and hydrocele was diagnosed. To make sure of the correctness of the diagnosis, he punctured the tumor with the hypodermic needle and withdrew fæcal matter with serum. The child had no symptoms of strangulation, and was sent home; but next day symptoms of a strangulation developed, and an operation was performed. A second case was interesting from the fact that the child was subject to attacks of eclampsia, and during the attacks would develop strangulated hernia, which the family physician had always been able to reduce under chloroform. Dr. Gerster was called upon in one of these attacks, and after they had reduced the strangulated hernia in the usual way with chloroform, he performed a cutting operation, which resulted in a cure of the hernia.

In the discussion which followed the reading of these papers, Dr. Gibney said it was the custom, in case the surgeon's operative measures proved unsuccessful, to lay blame on the general practitioner for having employed taxis for too long a time; but he had known many cases of reduction to take place after the employment of taxis for a considerable length of time. He had never seen a case of hernia in a child under two years of age which he could not reduce under chloroform, and when reduction had been effected the case could be cured by the use of a truss.

Dr. Gerster said, as bearing upon the paper of Dr. De Garmo, that in twenty-four operations of herniæ of different kinds, he had found adhesions in the scrotum in only one case, that being a case of congenital hernia in an adult. He understood Dr. De Garmo to say that in several of his cases there were adhesions in the scrotum which he felt give way under manipulation.

Dr. De Garmo explained that in only



one case did it seem that adhesions could be felt breaking down in the scrotum.—*Med. and Sur. Reporter.*

#### Volkman's Antiseptic Liquid.

THYMOL, 1 part; alcohol, 10 parts; glycerin, 20 parts; water, 100 parts. As used by the German surgeon whose name it bears, is a useful formula for antiseptis by thymol.—*Deutsche Amerikanische Apotheker Zeitung.*

#### How should the Sac be Treated in Herniotomy?

DR. R. F. WEIR read a paper with this title, in which he dwelt principally upon three questions: First. Did this additional surgical procedure for the prevention of a return of the hernia increase the mortality? Second. How is this additional operation to be performed? Third. How reliable is this procedure?

For the solution of the first question, only incomplete figures could be furnished. The statistics at hand of cases treated for radical cure of the hernia gave a lessened mortality over previous operations of from fifteen to twenty per cent. But it should be remembered that there had come to be a feeling, both among the laity and the profession, of the necessity of operating early, which rendered the chances of recovery greater. The treatment of the pedicle varied among different operators; but all agreed at present as to the necessity for closing the mouth of the sac. Dr. Weir had resorted to Nussbaum's method in five cases, and to MacEwen's in one; and he gave his preference for the former as being the simpler and more quickly performed. In his first cases he employed a flat truss just after the operation, but his own impression, and that of many others, was growing in favor of a simple bandage.

Regarding the third question, does

this procedure give permanent relief from the hernia? Statistics showed a sufficient number of relapses to lead us to say, at least, that the operation is not yet perfect.—*Med. and Sur. Reporter.*

#### The Conservative Treatment of Irreducible and Incarcerated Hernia.

DR. W. B. DE GARMO said that in treating of this part of the subject he would make no reference to strangulated hernia. He would maintain that the abandonment of these cases (cases of irreducible and incarcerated hernia), after a hasty examination, was entirely unjustifiable, and that to decide upon operative measures after a few moments' consideration was equally unjustifiable, for the reason that a good percentage of them could be relieved by safer methods. In illustration of these views, Dr. De Garmo read the histories of ten cases in which he practiced a form of long-continued taxis. He began at the bottom of the tumor, and made gentle manipulation of the contents as if freeing them from their adhesions, repeating the operation, perhaps daily for a week or more, if necessary, until finally the tumor became reducible. He would not give a case up as hopeless until this method had been tried for two weeks. It was better that the patient should keep the bed during the treatment, although several of his patients continued about their business. Nine of his ten cases had inguinal hernia, the contents being almost invariably omentum and intestine. The duration of the hernia had been in five cases ten years, in four cases five years, in one case one year. The result of the treatment had been seven reductions and two failures. In one case it was abandoned because of a diabetic condition. Mechanical support should be employed after reduction.—*Ibid.*

### Suppuration and Gangrene.

GROSS.—Never use cold in suppuration or in threatening gangrene.—*Coll. and Clin. Record.*

### Escharotic.

BARTHOLOW says:—Dried sulphate of zinc made into a paste by the addition of a little starch and water is a valuable escharotic and free from danger—unlike many escharotics.—*Ibid.*

## VENEREAL DISEASES.

### The Danger of Delay in Prostatic Troubles.

DR. R. D. WEBB, in an article published in *N. Y. Medical Journal*, December 24, 1887, after giving a few clinical histories, says in conclusion:

But the inquiries arise, how do these troubles commence? How are we to become aware of the danger? and how can we avoid it? In answering these questions I will continue the somewhat clinical style of this paper.

At from fifty-five to sixty, rarely as early as fifty, there is a slight prolongation of the time of passing the urine. There is no pain, no difficulty, only a prolongation of the time of emptying the bladder. It scarcely attracts the attention of the patient, and he goes on in his usual habits, giving himself but little concern about it. In a year, or probably two years, it becomes more perceptible, and at some time when he has been exposed on a cold, damp day, and has suffered his bladder to become somewhat fuller than usual, he finds considerable difficulty in voiding it, possibly attended by a sense of fullness or slight pain in the perinæum. A return to the warmth of home and a warm pediluvium at night give relief, and, unmindful of the warning, he goes on as before. But he soon finds that the desire to urinate is becoming more

frequent, and relief of the bladder becomes more prolonged, and begins to be attended by some straining effort and pain, which is not infrequently referred to the glans penis. He still is not alarmed at his condition, and disregards it. Another year is passed. He is now annoyed by the frequency of the calls to relieve the bladder. He is called up frequently at night for this purpose, and, if he is now exposed to cold and damp weather, he relieves his bladder with difficulty, and often he finds the act followed by a few drops of blood, or a prolonged exposure may cause a more decided congestion of the parts and retention of urine, which is not relieved until he is thoroughly warmed in his bed, or has taken a warm bath. Like most men, he dreads the catheter, even if it occurs to him as a means of relief, and he still neglects or refuses to seek medical advice.

The trouble now becomes more pronounced. The patient is constantly annoyed by calls to relieve the bladder by day and by night. His urine is passed only after severe straining attended by tenesmus of the rectum, and frequently with loss of blood. He is annoyed by the idea of stone in the bladder. The case has now reached a point at which medical advice is sought, but, with the idea uppermost in his mind that he has stone, or simply cystitis, he may mislead an unsuspecting physician. Now is the time that aid must be had, or soon the bladder, columniated and thickened by its abnormal muscular action, will force the urine, impeded in its outward exit, to flow back through the ureters, causing them to enlarge, and eventually result in disease of the kidneys. Once this chronic inflammatory condition of the bladder is fully established, and the ureters are enlarged by the reflex action of the blad-

der, the case is serious, it is but a little way to nephritis and death, and the boldest surgical measures are justifiable means of relief. The Mercier operation (or punching, so to speak, an artificial urethra through the obstructing gland), which its inventor alleges to have been wonderfully successful in his hands in Paris, has not been popular here or in England, but may now be resorted to. Dr. J. W. S. Gouley, of New York, has performed it successfully in eight or ten cases, but I saw in his collection of pathological specimens the bladder of a patient (a brother doctor) who had submitted to this operation at his hands. He is now more cautious, and hesitates to operate by this method in cases where the obstructing bridge or bar exceeds an inch in thickness. Gouley, Gross, Thompson, and Gant have resorted to perineal section for the chronic affection which attends hypertrophy of the prostate, and relief has been found and life protracted. Or, when there is entire retention of urine, artificial outlets, with tubation, through the perinæum and also through suprapubic section, have been made with some degree of relief.

An Italian physician has resorted in a few cases successfully to electro-cautery by means of a metallic catheter. It is somewhat similar in principle to the method of Mercier, but reached by different means. Sloughing of the parts in the tract of the instrument follows the cauterization, and an artificial urethra is formed through the obstructing part. The process is not without danger.

Dr. Robert Newman, of New York, has used electrolysis successfully in a number of cases, applying the current through the urethra, not as an actual cautery, but for a very short time only as an absorbent. It is a method that

has much promise, and may be used in the earlier stages of the disease to prevent the progress of the enlargement to a dangerous extent.

Electrolysis, by puncturing the gland itself by a suitable galvanic needle, has not, so far as I am aware, been tried; but, from the well attested success of this method in other tumors, it would seem worthy the attention of some bold innovator.

But all these measures, except that of Dr. Newman, are to be regarded as only applicable to extreme conditions. The object of this paper is to call attention to the trouble in its earlier stages, and avoid if possible these extreme measures. The insidious approach and danger of delay have already been pointed out, and I cannot insist too strongly upon timely aid. The physician should ever be on the alert to detect it in its early stages, and ever ready to watch it with unceasing care.

Much relief is often obtained at this period by anodynes, the most potent of which are opium and belladonna, used in the form of suppository. But, as the case may extend over years, caution should be used in prescribing opium, for fear of forming the opium habit. The acute paroxysms of congestion or inflammation are to be met on general principles. Of internal remedies only three have proved of any avail in my hands. These are quinine, ergot, and salicylate of sodium. Quinine is especially applicable to the engorged conditions following exposure to cold. It should be given in decided doses combined with Dover's powder. Ergot (Squibb's fluid extract), 25 drops every two or three hours, used for the same purpose, gives much relief. It has been thought by some to act specifically upon the prostate gland, but I do not see any good grounds for such an

opinion. Its action is doubtless here, as under other circumstances, on the capillaries of the congested organ.

The salicylate of sodium, in from 10 to 20 grains every two or three hours, is better suited to the chronic inflammatory conditions of the bladder. I have preferred using an extemporaneously prepared article:  $\mathcal{R}$ . Bicarbonate of sodium, salicylic acid,  $\overline{\text{aa}}$  3 ij; water  $\overline{\text{vj}}$ . Mix in a mortar until effervescence ceases. Sig.: Tablespoonful every two hours.

I have seen more decided relief from this than from all other internal remedies. The antiseptic character of the remedy acts favorably upon the urine, as well as upon the irritable condition of the bladder. But we must not depend upon these remedies. No one of them, or all of them, can be relied upon for permanent relief. The catheter, judiciously used, with systematic and persistent irrigation, is the only means to ward off the inevitable results of the affection, and by a judicious use of these alone can life be prolonged and rendered comfortable. Other remedies may be used as adjuvants, but to this at last we must come.

The time for beginning the use of the catheter and irrigation must be determined by the symptoms of each case. So soon as the voiding of the bladder becomes much prolonged and painful, and there is reason to believe there is residual urine, or if the urine becomes from any cause ammoniacal, we should commence to use the catheter, and at least once in twenty-four hours empty the bladder thoroughly and wash it out with an appropriate solution. Many have been suggested, but for early use a solution of chloride of sodium will be found most generally serviceable. Later in the case biborate of sodium, boric acid, or salicylic acid may be used. The

following is the formula recommended by Dr. Gouley. I have used it often with much relief:  $\mathcal{R}$  Bicarbonate of sodium  $\overline{\text{ij}}$ ; essence of gaultheria  $\overline{\text{ss}}$ ; glycerin  $\overline{\text{vij}}$  M. Sig.: Tablespoonful of above in pint of warm water, used once or twice a day.

Or a combination of boro-salicylate may be used. For this purpose I use boroglyceride,  $\overline{\text{ss}}$ ; glycerin,  $\overline{\text{vj}}$ . M. Sig.: Tablespoonful to pint of warm water. The method of using the injection requires tact and discretion. It should be used in such a way as not to give pain, and to secure a thorough irrigation of the bladder.

The Politzer air-bag, with an attachment of a pointed rubber nozzle supplied with stop-cock, is a very convenient and effective method. With this instrument and a Benas catheter the operation may be painlessly and effectively accomplished.

The fountain syringe, or the Davidson syringe used as a siphon, connected to a catheter by rubber tubing, may also be conveniently used, but with these care should be taken not to throw the fluid in too rapidly. The kind of catheter used has much to do with the comfort of the patient and success of the treatment.

In the earlier stages the soft rubber catheter of Jacques, or as prepared by Tiemann & Co., may be conveniently used. But as the gland becomes more seriously enlarged, these cannot be introduced except by using a stylet, which is objectionable.

The Benas gum catheter, made of plaited silk and smoothly covered with gum, is the best and most convenient I have ever used. It is sufficiently flexible to prevent the danger of injury, and yet stiff enough to be easily introduced without the stylet. The patient may be taught to use it himself.



I have thus hurriedly pointed out the dangers of delay in this disease, and if I have succeeded in arousing an interest in it that will direct to an earlier detection and a more persistent carrying out of the simple treatment necessary to ward off its sequences, I am content.

### DISEASES OF THE EYE AND EAR.

#### Enlargement and Displacement of the Lachrymal Gland into the Upper Eyelid.

At a recent meeting of the Medico-Chirurgical Society of Edinburgh, as reported in the *Edinburgh Medical Journal*, Dr. ARGYLL ROBERTSON showed a case of this affection. The case was unique in his experience, and also, he believed, in ophthalmic literature. There were cases of enlargement into the orbit which tended to displace the globe. The displacement of the gland in this case was into the upper lid, in which it formed a tumor, occupying its whole length and part of the breadth, preventing its movements. From the history, that it commenced with a degree of uneasiness and increased lachrymation, and from its granular feel, and the circumstances that, though attached above, it was freely movable under the skin, Dr. Robertson came to the conclusion that the tumor was the gland displaced, and undertook its removal. During the operation, he came across the accessory portion of the gland in its normal position, and left it there to provide moisture for the eye, which had quite recovered from the operation. The lid did not move so readily as its fellow, but its movements were much better than before. The patient had deep sunk eyes and abnormally small orbits, which afforded a probable explanation of the displacement into the lid, instead of into the orbit. The patient was a spirit

merchant, and had sustained no injury to the eye, nor had he any inflammatory symptoms. The tumor was observed by the patient in January, when it was about the size of a bean, since which time it had gradually enlarged. The patient also stated that, in the winter of 1885, a small, similar swelling occurred in the lid, which, however, did not inconvenience him so much, and disappeared. The removed gland was also shown.—*Boston Med. and Sur. Journal*.

#### Alarming Syncope from Syringing the Ear.

IN the *Lancet*, Mr. J. MIDDLEMASS HUNT, M. B., Surgeon to the Throat and Ear department of the Newsham Dispensary, Liverpool, reports that he was called to see a boy with suppurative disease of the right middle ear, who had suddenly fainted after his ear had been syringed out by his mother. It should be stated that previous to the syncope the child had been running about apparently well. He found the boy in profound coma, with slow, irregular respiration, rapid pulse, lividity of the lips, cold extremities, and dilated pupils. He considered the boy to be at the point of death, but ordered mustard to be applied to the nape of the neck and the lips moistened with brandy and water. In a few minutes after the mustard was applied the child became conscious and to all appearances as well as usual, except that he was somewhat pale and languid. There were no signs of caries in the ear, and the urine was free from albumin. The child has since remained well.

Roosa has reported a similar case, which occurred in a man forty-five years of age, but gives no explanation of the cause of the coma. Hunt is disposed to think that it is a nervous reflex starting from the termination of the auditory nerve in the semicircular canals

and labyrinth, or from the tympanic plexus. Lockhart Clarke has demonstrated a connection between the roots of the fifth cerebral, the glosso-pharyngeal and the vagus.

## DISEASES OF THE SKIN.

### Freckles.

DR. GEORGE H. ROHÉ (*Maryland Medical Journal*):

*Freckles*.—The sun's rays acting as a stimulant through the peripheral nerve terminations, sometimes cause an over production of pigment in the skin, which is collected in small roundish masses, causing yellowish or brownish spots. These spots are called freckles, and they are more frequent in persons of blond complexion. They are especially distributed on those portions of the skin covered by clothing, and are more noticable in summer. The Germans call them *Sommerflecke* (summer spots). The discoloration is due, as above stated, to an increase in quantity of the normal pigment of the skin. The peculiar arrangement of the coloring matter is doubtless due to some action of the peripheral nervous system, which is not clearly understood.

Freckles are generally believed to disappear entirely during the winter season. Hebra has shown, however, that this is not the case, but that they grow so faint in the absence of strong sun-light that they are no longer noticeable.

These little pigmentary blemishes can hardly be looked upon as a disease, but from a cosmetic point of view they are undesirable possessions. Hence many persons, especially of the gentler sex, are anxious to get rid of them, and frequently apply to the physician for treatment. Inasmuch as the over-pro-

duction of pigment cannot be checked by any means at our command, a radical cure cannot be accomplished. The affection is however amenable to palliative treatment. A number of applications may be used which will cause a temporary disappearance of the spots. Salicylic acid is one of the most effectual of these remedies. It is used in alcoholic solution or in ointment. The following are useful formulæ:  $\mathcal{R}$ .—Acidi salicylici 3 ss., spiriti myrciæ,  $\mathfrak{z}$  ii. S.—Apply night and morning with a soft rag or sponge.

$\mathcal{R}$ .—Acid salicylici, 3 ss.; hydrarg, ammoniatæ, 3 i., ungt. aquæ rosæ,  $\mathfrak{z}$  i. M. ft. ungt. S.—Apply at night.

During the day a lotion of corrosive sublimate (gr. j:  $\mathfrak{z}$  i) may be applied two or three times.

These applications will soon produce a slight scaling and roughness of the skin, which is easily subdued by glycerite of starch. Should the skin become red and irritated, the applications must be intermitted until the irritation subsides.

Should a stronger application be needed the following, recommended by McCall Anderson, may be tried:  $\mathcal{R}$ .—Saponis viridis,  $\mathfrak{z}$  ii.; sp. vini rectificati,  $\mathfrak{z}$  i.; hydrarg. bichloridi, gr. vi.; Ol. lavandulæ gtt., x. M. Solve et filtra. S.—Apply at night and wash it off in the morning.

This will generally be found too irritant, however, for a skin that freckles. Glycerine lotion or glycerite of starch should be used during the day.

In slight cases the following lotion of borax and chlorate of potash answers the purpose very well:  $\mathcal{R}$ .—Sodii boratis, 3 ii; potassii chlorat., 3 i; glycerinæ,  $\mathfrak{z}$  ss; sp. vini rectific., 3 ii; aquæ rosæ, quan. suf. ft  $\mathfrak{z}$  vi. M. S.—Apply with a soft sponge several times a day.

**Chloasma.**

THIS is a very frequent affection, occurring upon the face, especially in women suffering from disorders of the generative apparatus. It is rare in men. The common name for it is "moth patches." The affection consists of yellowish-brown or brownish patches on various parts of the face. The forehead, chin, temples, and lower portions of the cheeks are principally affected. There is neither desquamation nor infiltration, and no subjective symptoms of any kind are present.

The causes are obscure. It is known that the discoloration appears frequently during pregnancy, to disappear after parturition. It is also a frequent accompaniment of uterine and ovarian disorders, and often disappears when these troubles are cured. The relation of cause and effect is, however, not known.

Chloasma resembles very closely *tinea versicolor*, a discoloration of the skin due to a vegetable parasite. The latter, however, in nearly all cases, occurs upon the chest, abdomen, arms and neck, namely upon those portions of the body covered by clothing. It is very rarely seen upon the face or hands. Chloasma, on the other hand, is almost entirely limited to the face. *Tinea versicolor* is slightly scaly and sometimes itches. Neither of these features are present in chloasma. Finally, the latter disease occurs nearly altogether in females after the age of puberty, and generally in those who suffer from some derangement of the generative organs, *tinea versicolor* is oftener seen in males.

The treatment of chloasma consists in removing the uterine or ovarian disease, if any can be found, upon which the pigmentation depends, and in promoting the casting off of the superficial

epidermal layer so as to bring a less pigmented stratum to the surface. For this purpose the applications recommended above for freckles will be found useful. The ointment or lotion of salicylic acid, or a lotion of corrosive sublimate 2-2 grains to the ounce may be used. Soft soap spread upon strips of muslin like an ointment, and allowed to remain upon the pigmented skin for several hours will produce a maceration and desquamation of the epidermis which often leaves the skin of a normal color after the redness has disappeared. The discoloration will however return unless the use of one of the ointments or lotions mentioned is continued.

The application which will give the most satisfactory results is an ointment of subnitrate of bismuth and white precipitate, in the following combination:  $\mathcal{R}$ .—Bismuthi subnitrat., hydrag. ammoniat., āā 3i; vaselinī, ʒi. M. ft. ungt. S: Apply to the discolorations at bed-time, and remove in the morning with Hebra's spiritus saponis kalini.

This ointment I have used in a large number of cases with uniform success. Sometimes it is a little too active and produces irritation of the skin. Its use must then be intermitted for a few days, or the ointment made weaker. Some skins can stand a much stronger application, however, and I have used as much as two drams of each of the active ingredients to the ounce of vaseline.

The effect becomes manifest in a few days after beginning its use. There is slight scaling and roughness of the skin, showing that a furfuraceous desquamation of the epidermis is going on. In the course of ten to fifteen days the skin has become much paler, and if the application be continued the normal tint of the skin can be regained. This can, however, only be maintained by the

continued use of the ointment, unless the disease of the internal organs upon which the discoloration depends has been removed.

The pigmentation of the skin from sunburn usually soon disappears after the cause has ceased acting. The bleaching can be somewhat hastened by a lotion of corrosive sublimate in emulsion of almonds (gr. j:  $\frac{3}{4}$  ii).

Permanent discolorations of the skin are sometimes produced by a mustard poultice or blister. Hence care should be taken to avoid making these applications to the face, or upper part of the chest in women, as they may prove the source of an annoying or humiliating disfigurement in the latter. I have seen a number of cases in which the chest had become pigmented from mustard poultices, thus interfering with the wearing of dresses cut décolleté. To many women this is not altogether a trifling matter.

In these discolorations the use of the salicylic acid lotion above mentioned will prove useful. The prognosis must not be too sanguine, however, as the pigmentation is liable to return.

#### **Cornu Cutaneum.**

THIS disease, or rather deformity is one which, whilst comparatively rare, is full of interest. It is classed among the hyperthrophies and known ordinarily as cutaneous horn. A remarkable example has been exhibited to the public, for several years past, in "Tao," who has appeared in the various dime museums of this country. The growth is solid, hard and dry, and its surface appears rough or wrinkled; it is more or less roundish in shape or may occur as a flat or irregular growth. When occurring as a true horn in shape, it may be long or short, roundish or conical, and is always more or less crooked and

twisted when it has attained any length. The free extremity may be pointed or blunt, being pointed where short and, in general, conical in shape; and blunt when it has attained any considerable length. The length of these horns varies from a few lines to several inches; an example which I have seen, measured seven and one-half inches. The base of these growths is always larger than a cross section at any other point, and at the point of attachment is either flat or lightly concave. At the base there is a certain portion of skins elevated all around, looking like a ring and within this or even beyond its borders there extends a more or less marked inflammatory areola.

These growths are either solitary or multiple. They are solitary as a rule and almost always of a large size. They may occur on any part of the body, the face and scalp being most often the portion upon which they are seen. They drop off spontaneously and when this occurs the base is the seat of epithelioma.

The age at which these growths are observed is from forty to forty-five, although they have been seen at or about twenty, in a number of cases. They grow quite slowly and there is no pain attending them. When of a certain size, however, moving them by the free extremity causes more or less sharp pain and discomfort. They are of rare occurrence and their cause has not yet been determined. They seem, however, to originate in a "wart" in the majority of instances, and observant subjects of this deformity have noted this as the beginning of their trouble.

These horns consist essentially of a number of slender columns held together by a sort of a cement substance. The columns themselves are formed of cells from the lower layers of



the epidermis. These cells are shrunk, dry and their nuclei cannot be seen in the distal portions of the growth. At the proximal part they can be distinguished and the vascular supply here can also be determined. Canals have been found, due to a greater or less shrinkage of the material composing the columns, above referred to.

The treatment of this trouble is of the very simplest, and entirely surgical. The simplest and best method, perhaps, is to make a circular incision around the base of the horn and going through the entire integument. This is not only thorough but embraces all the procedures necessary. Another method is to remove the horn and cauterize several times. In growths occurring in special localities the operative procedure must be governed, in great part, by the condition which is present. For instance, in some horny growths of the penis, the only operation which is satisfactory, is amputation. Whatever method is used one rule must be observed—the operation must be thorough and radical or one of two things will happen: the growth will recur or a troublesome epithelioma will develop.

In all these horny growths, immediate removal should be counselled. While it is true that they may exist for years without producing any pain or trouble, it is equally true that they may drop off at any time, leaving behind them an epitheliomatous base which may prove very troublesome and refractory to treatment. This is especially the case when it occurs in old people or those pretty well advanced in adult life.

In the young there is probably no danger of this kind, but the ultimate result will be the same.—*St. Louis Medical and Surgical Reporter*.

#### Absorption by the Skin.

DR. RITTER has given the question of absorption of lanolin through the skin a careful experimental trial. He found that when a ten per cent. ointment of potassium iodide and sodium salicylate in lard was rubbed into the skin, these substances were not absorbed, while through an application of an ointment of salicylic acid the characteristic reaction by chloride of iron could be obtained in the urine.

This different effect Ritter explains by the fact that salicylic acid injures the continuity of the skin and is thus absorbed. A similar result was obtained when lanolin was used as a constituent of the ointment.

According to Ritter, Liebreich's experiments are not convincing, because Liebreich only used such substances as led to absorption by injuring the continuity of the skin. By further experiments, on the absorption of fluids, he came to the conclusion that it only takes place when the continuity of the integument has been interfered with.—*Druggist's Circular and Chemical Gaz.*

[Ritter's experiments in no way demonstrate that those made by Liebreich are not convincing. Those who have carefully examined the numerous and practical physiological and clinical research made with *lanolin* will be convinced that the views of Liebreich are undoubtedly proven.]—*Med. Register*.

#### Calomel for Hypodermatic Use.

SMIRNOFF uses a mixture of 1 part of calomel and 10 parts of glycerin, put in dark glass bottles, with tight glass stoppers, each bottle containing 30 grains of calomel and 5 drams of glycerin. When to be used the bottle is thoroughly shaken, and the syringe introduced through the wide mouth of the bottle.—*Therapeutische Monatshefte*.

## FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

### A Case of Nephrectomy.

DR. CHARLES T. PARKES (*Therapeutic Gazette*):

When I returned from my vacation in September, I found a patient awaiting me at one of the hospitals in the city. Upon examination it was found that a tumor could be easily palpated in the right side of the body beneath the ribs, large enough to extend down to the superior spinous fossa of the ileum, and reaching up to the hypogastric region below the liver. Upon the usual attempts at palpation and percussion, the dullness over the tumor was found to be continuous with the dullness of the liver. But the tumor appeared to me to be so elastic as to present some of the characteristics of a sac containing fluid. So I introduced an aspirator needle into it, and as was expected, found pus. As it presented none of the usual symptoms of a perinephritic abscess, it was diagnosed to be a case of suppurative disease of the kidney communicating with the bladder through the ureter, the bladder being the outlet of the pus. There was no apparent disease of the bladder itself, other than that which would be present as a consequence of the foreign substance in the bladder.

Obtaining the patient's consent to an operation, an incision was made over the tumor to the outside of the erector spinæ muscle, and it was exposed; then the pockets of pus in the organ were located by the hypodermic syringe. On this occasion, three pockets of considerable size were opened, and drainage tubes introduced. About a pint of matter was let out. It was decided that these three pockets, that were found by introducing the syringe in different places, did not communicate with each

other; they were separate cavities, and I think that is the usual condition found in this sort of disease of the kidneys; the pockets are multilocular.

One of them opened freely into the pelvis of the kidney, so that through the incision that was made the finger passed into the pelvis, and water injected into this went into the bladder, showing that there was a direct communication from this cavity of pus to the bladder and urethra. The drainage tubes were left in and the patient improved promptly, losing the fever and symptoms of pus accumulation and retention. For two weeks the improvement continued, then it was noticed that she began to fail rather rapidly and to show signs of fever again; there were signs of septic accumulation, and the tumor began to increase in size, so that from diminishing, perhaps half the size when first examined, it increased one-third. As she was failing and the diagnosis was as complete as it was possible to make it, it was decided to perform nephrectomy.

There are some points of importance in the case: The drainage tube that went into the pelvis of the kidney gave free exit to quite a quantity of urine. I think that most of the secretion from that kidney came through the drainage tube; it was sufficient to wet thoroughly in two or three hours a large dressing; this dressing was sufficient to keep the discharge from the wound pure, so that there was nowhere decomposition of pus so far as the outward manifestations were concerned. It struck me that if this drainage tube from the diseased kidney gave exit to such an amount of urine, and at the same time there was a good flow of urine from the bladder, it was a fair indication that the other kidney was not diseased, and that success would attend the removal of the

diseased kidney, and it was decided to do the operation.

Sixteen days ago the operation was done. The patient was prepared in a certain way that I have followed in reference to all patients upon whom I do what is considered a serious operation, and I think it has a certain influence in preventing shock. Two or three hours before the operation is performed the patient is given gr. v. to x of quinine, and gr. 1-4 of morphine. This medicine was administered to the patient of whom I am speaking, and the operation for the removal of the kidney was performed. The whole proceeding from beginning to end occupied an hour, and she went to bed without any manifestation of shock, and with a pulse of 112. She had no rise of temperature until the second day, and then it rose to  $100^{\circ}$ ; subsequent to that it fell to normal and did not rise above normal until the twelfth day, when other symptoms appeared. During all this time the wound was absolutely aseptic. It healed promptly by first intention, so that on the seventh day all stitches were removed; the wound was solid from one end to the other.

There are some points about this operation to which I desire to call your attention, and I will pass the specimen around to show the nature of the trouble. You will see at the lower end a cavity, which was found to contain six or eight ounces of pus; there is another cavity in the interior of the kidney, the pelvis is entirely destroyed and filled up with adventitious material.

Here was an operation to be done upon a moderately sized woman for the removal of a tumor containing pus, a tumor which reached up under the ribs, down to the crest of the ilium, and forward to the anterior spinous process. There was a tumor containing pus in

which large pockets had formed—what was the best way to remove it? There is no question in my mind that the best operation, in general, for the removal of the kidneys is the posterior operation. However, there are many diseases for which this operation is done where it is impossible to do it in another way than by the anterior operation, such as cases of cystic degeneration where the tumor is so large that it cannot be extruded posteriorly, but here was a tumor of moderate size, containing pus, in which it was desired above all things to avoid

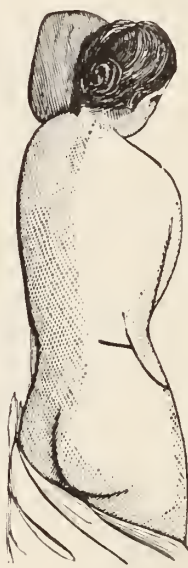


Fig. 1.



Fig. 2.

getting into the peritoneal cavity, a tumor which had sacs, the walls of which were in moderate degrees of thickness and strength, but could easily be broken upon pressure.

Therefore, the day before the operation I took a cadaver and experimented upon the lines of incision which would best expose this tumor and give exit to it. I finally decided upon the incisions represented in Figure 1. This represents the patient lying upon the opposite

side from the diseased kidney. In these experiments I found that by a certain incision I could get the amplest room without doing injury to the colon or peritoneum; certainly no more likely to injure the colon, the peritoneum, or other contents of the abdominal cavity, than in an operation for the exposure of any large blood-vessels of the abdomen.

It is hardly necessary for me to state that there is some little difference between sub-serous tissue in the lower portion of the abdomen and that of the upper.

In the lower portion it is very loose and easily separated, whereas at the upper portion it is quite thin and the peritoneum is more apt to be torn, hence more care should be used in an operation in this position. The commencement of the incision is supposed to be two inches above the anterior superior spine of the ilium. It is carried in a curved direction downwards and backwards to the last rib. The incision is carried through all the tissues, down to the fascia transversalis, everything is carried forward out of the way, and with the finger the dissection can be made, well behind the tumor; all the parts are separated, then a straight incision is made through all of them, straight back from the first incision and half way between the crest of the ilium and the last rib. The introduction of a ligature at the point of the posterior flap, and pulling aside, there is a wound one can get both hands into, and by exposing the kidney in all its parts, reach the tissues which one wishes to have under control, without difficulty. Figure 2. In this case, as soon as the incision was made the tumor presented itself, the finger could be carried around it in all directions, so that the kidney with its blood-vessels, ureter, and all, could be exposed to view.

I desired to adopt the plan, which is a good one to adopt in all tumors that are difficult to reach, of diminishing the size of the tumor, and attempted to divide it in halves by the cautery, but after a few strokes of the knife I approached a pocket of pus, and gave that up for fear of infecting the wound. I had very little difficulty by taking an eyed probe, threaded with a stout double ligature, in passing the probe through the centre of the pedicle, and then with the double ligature ligating it in halves. The ligatures controlled the circulation perfectly. The vessels in the exposed stump were picked up and ligated one by one as a special security. Drainage was perfect, and the anterior wall of the peritoneum fell easily into place and united by primary intention. At the end of a week there was nothing left of this large cavity but the track of the drainage tube.

This case is an important illustration, it seems to me, of the safety of the posterior incision for tumors of considerable size, where the line of incision is carried out, somewhat in the way here indicated. The saddest part of my report is to come: Four days ago this patient was taken with symptoms of cerebral trouble and suppression of urine, and she died with all the symptoms of uræmia this afternoon, at 1 o'clock, sixteen days after the operation. As yet a satisfactory examination has not been made to determine the condition of the opposite kidney, neither has there been a satisfactory microscopic examination of the tumor. Several sections have been submitted to examination, but none have shown tubercular bacillus.

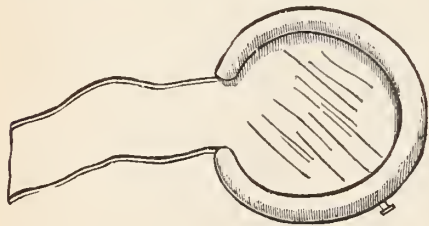
The post-mortem examination showed a highly congested swollen organ in the remaining kidney, the capillary vessels were ruptured in many places.



**Rubber Cushions for Surgical Purposes.**

DR. HOWARD A. KELLY read the following paper before the Philadelphia County Medical Society:

These cushions resemble those commonly used by students at lectures, in having an inflatable rim, but differ in being left open on one side, being C-shaped or rectangular, with one side out. They have a bottom of rubber sheeting extended into an apron some inches in length for the purpose of drainage. I have had constructed three separate forms, a large C-shaped cushion measuring about twenty inches in diameter, the opening of the C being about eight inches across and the apron twenty inches in length. The rim measures about two inches in diameter when inflated. This pad I constantly use for abdominal sections; it is also of great

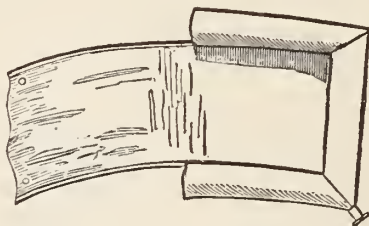


service in obstetrical cases requiring operative manipulation. It permits the free use of water for douching purposes; drains all blood and water from the field, enabling the operator to return the patient at once to bed without the necessity of removing clothing or changing linen. It has each month saved me more than its cost in the wash at my private hospital.

A similar pad of the same pattern, measuring but ten inches in diameter, is in use on the examining-table in my office, in all cases in which it is necessary to douche out the uterus or vagina.

The third pattern, which is in constant use for minor gynæcological work, is the perineal cushion. It is rectangu-

lar in shape, opening on one side, having a rubber bottom and long apron similar to the preceding. When it is in use the patient's clothes are elevated, and the thighs held flexed on the abdomen by my "Beinhalter." The buttocks are drawn down over the edge of the inflated rim, and the apron which hangs down from the edge of the table carries off all blood and the water used throughout the operation.



There is no one device in all my gynæcological work which has given me so much comfort as these simple cushions. I use gallons of water with the utmost freedom, and without ever being obliged to think once where it is going. In perineal work, instead of using sponges, I use constant irrigation, which prevents clotting of blood and soiling of instruments, and replaces at no expense, and with greater comfort and satisfaction, the sponges formerly used. The work thus accomplished is neater and cleaner, and the results are better.

I also present now for the first time a design for a rubber bed-pan. It is oblong in shape, with an inflatable rim and a rubber bottom. It differs, however, from any previous device in the fact that one end communicates with a large funnel-shaped reservoir, terminating in a large nozzle, through which the fluids are finally discharged. The whole peculiarity of the device depends upon the funnel and its outlet. The funnel is very broad at the top, being of the full width of the cushion, about seven inches in depth to the tube, terminat-

ing in the discharge pipe of the same length, which is perforated at its lower side by a button-hole for attachment, when in use, to the rim of the cushion. When the cushion is in use the rim is inflated, the discharge pipe is buttoned to the rim, and the patient is placed upon the cushion. Vaginal or rectal injections are now to be given. The fluid, as it is discharged from the vagina or rectum, accumulates on the floor of the cushion, the amount this will hold depending entirely upon the depth of the inflated rim and the size of the cushion and reservoir. When it is desired to empty it, the rim is caught in the hand at the upper end, and carried with the funnel hanging downward; all fluids at once gravitate into this, but do not escape, owing to the attachment of the discharge pipe to the rim. It is then carried to the closet and the discharge pipe unbuttoned, when the fluid rushes out; it is further cleaned by allowing the water to run freely through it in the same manner.—*New York Medical Journal*.

#### An Aseptic Universal Needle Forceps.

DR. GEORGE R. FOWLER (*N. Y. Medical Journal*):

Ever since the introduction of the excellent form of flat needle known as the



Hagedorn, surgeons have regretted the apparent necessity for a needle-holder of considerable complexity of mechanism, in order to grasp this form of needle firmly. The device of Hagedorn for accomplishing this purpose is open to the very serious objection

of having a number of "stow-away" places for dirt, and consequently infectious material. It requires the services of a mechanic, when it is cleaned, in order to take it apart and put it together again properly. F. Haslam & Co. have made, at my suggestion, a needle forceps which combines three very desirable qualities. In the first place, it is thoroughly aseptic, being composed of but two parts, which unlock and come apart by means of what is known as the "French lock." Secondly, its jaws are of hard steel, instead of being faced with soft copper, as is the case in the Hagedorn forceps, and consequently are more durable; and, lastly, it is so arranged as to grasp firmly a needle of any shape, whether flat, round, or three-cornered. The above cut represents the needle-holder grasping a Hagedorn needle, which can be placed at any angle between its jaws. A shallow groove upon the face of one of its jaws enables it to hold with equal security a round or a three-cornered needle. The advantages of possessing a needle-holder capable of grasping any sort of needle will be apparent to every surgeon.

#### Prolonged Survival after Extensive Fracture of the Pelvis.

DR. S. D. HOWARD, of Elk Grove, Cal., reports the following case: On October 31, 1887, T. W. was working in a gravel pit when the bank, which rose above him about twenty feet, caved. A mass of earth, that must have weighed about 300 pounds, struck him over the lumbar and gluteal regions, throwing him against the hub of a wagon wheel which impinged on the pelvis in front. He was taken out by his companions and brought to town in a cart. When seen half an hour later he was suffering from shock and complaining of intense

pain in the right iliac region, any movement of the parts being attended with agonizing pain. An extended examination was impossible; I could, however, feel distinct crepitation on the right side, and concluded that there was a fracture of the ilium. Patient was placed under the influence of opiates and rested comfortably. During the afternoon, as he was unable to pass water, I introduced a No. 6 silver catheter. The instrument apparently entered the bladder without difficulty, but no urine escaped; blood, both fluid and in clots, came away quite freely. The bladder did not appear to be distended, and no further attempt was made until late in the evening, and then with precisely the same result. The following morning the bladder was distended, and, though anxious to make water, patient did not appear to suffer greatly from this cause. I again introduced the catheter, but failed to enter the bladder. Blood came through the instrument, and during the night some had flowed from the penis. I then believed that the right kidney had been injured, and that the bladder was full of blood. At noon that day Dr. J. H. Parkinson saw the case with me. Patient was fully anæsthetized (on the previous occasions I had given chloroform to partial insensibility), and examined. The bladder was distended, reaching almost to the umbilicus; the abdomen on either side was resonant. Repeated attempts with various instruments completely failed to enter the bladder. It was noticed when using a large silver instrument, that the point had a tendency to turn to the right when in the neighborhood of the prostatic urethra. On this occasion, also, blood escaped freely from the passage. As it was evident that the urethra had been lacerated, and that operative treatment

was imperative, he was removed to the County Hospital.

On admission, Dr. White succeeded, without much difficulty, in introducing a catheter; but though several sizes were used, large clots of blood choked the instruments so that little urine was obtained. It was decided to perform a perineal section, and the patient was placed on the table and anæsthetized. The patient being placed in the lithotomy position, a large double current catheter was introduced, when the urine flowed freely. This rendered the operation unnecessary and the instrument was tied in, the bladder having been first thoroughly irrigated. A careful examination then showed that there was a fracture of the right pubic bone, crepitus being distinctly obtained with one finger in the rectum. It was also apparent that there was extensive laceration of the urethra, implicating the wall of the bladder. The catheter was kept in position for four days, antiseptic irrigations being used twice daily. After this the instrument was withdrawn, the urine passing freely by the urethra. The injections were continued—solution of corrosive sublimate 1:3000 at first, and, later, solution of carbolic acid 1:100 being employed. Mucilaginous drinks were given freely with quinine and opium, the latter very freely. A broad band of adhesive plaster was passed round the pelvis and over it a muslin bandage. During micturition, and when the bladder was irrigated, clots of blood, small shreds and muco-pus passed away. On November 10, patient had a chill, and on the following day there was œdema of the thigh. On November 12, the œdema was more marked; distinct fluctuation below Poupart's ligament and extending through the tissues of the thigh was apparent. To relieve tensor two in-

cisions were made on the outer side of the thigh, nothing but serum escaping. On November 13, fourteen days after receipt of injury, the patient died, evidently of septicæmia.

*Autopsy.*—Made November 14, by Dr. White. Body emaciated; marked œdema of the right lower extremity; two incisions on external side of thigh. On opening the abdomen there was evidence of general peritonitis; the omentum was congested; a large ecchymosis, representing blood, effused behind the peritoneum, extending completely across the posterior wall. The descending colon, throughout its entire length and including the rectum, appeared to have been badly bruised. The inferior margin of the liver had the same appearance; also the right ureter. The right kidney was deeply congested, but uninjured, and the urine in its pelvis and ureter was clear. The left kidney was intact. On prolonging the incision down to the pubis, separation of the symphysis was found to the extent of one inch. Extending the incision outwards to examine the femoral canal on the right side, a comminuted fracture of the transverse ramus of the pubic bone was exposed. The bone was bare, one of the fragments projecting into the bladder. The anterior and superior wall of the bladder was absent, its place being supplied by the adjacent tissue; the viscus contained a small quantity of grumous matter, some of which could be identified as fibrin; the walls were covered with black tenacious mucous, the parts having a greyish-black appearance. There was a free communication through the femoral canal, between the bladder and a cavity in the anterior and internal aspect of the thigh, extending downwards for about six inches; this contained urine, unhealthy pus and tissue debris. An ex-

amination of the perineum and urethra showed that the membranous and prostatic portions were absent, being replaced by a cavity communicating with the bladder, and also with the cavity in the thigh, allowing a sound introduced *per urethram* to pass readily into the femoral canal. Further examination revealed the fact that there was a comminuted fracture of the right ischium at its junction with the ilium; symmetrical fractures of the left pubis and ischium, also comminuted; and a fracture of the sacrum on each side, close to the sacro iliac synchondrosis. There was no attempt at repair in any of these fractures. The parts were subsequently removed, and, in the process of cleaning, it was discovered that the third sacral vertebra was fractured through its body, and that a vertical fracture completely separated the laminæ and spinous processes of the first, second and third vertebræ from their bodies. —*Sacramento Medical Times.*

#### The Cure of Large Ulcers of the Leg by the Carbolized Spray.

GILLES DE LA TOURETTE, of Paris, presents in detail three cases of stubborn ulcers of the leg in inmates of the Infirmerie des Incurables connected with the service of Charcot. The general condition of the patients was of the worst description. The first was an extremely debilitated and emaciated subject of asthma conjoined with chronic bronchitis, 69 years old, presenting an enormous ulcer covering the whole right leg, from the malleoli to within an inch of the tuberosity of the tibia. The carbolic spray for an hour and a half morning and evening, with intermediate dressing with borated vaseline, caused a complete cure in less than a month. The second was an ulcer, eighteen centimeters high, covering the lower half of



the leg in a patient 82 years of age, feeble and senile, and the subject of chronic bronchitis. Carbolized spray for two hours twice a day with borated vaseline dressing in the intervals, secured a complete cure in about six weeks. The third case occurred in a syphilitic subject, with mitral insufficiency, tertiary syphilis and chronic bronchitis, aged 59, with a vast ulcer, twenty-two centimeters long, enveloping the whole leg. Carbolic spray applied during the next six months had brought the ulcer down to about the size of a six sous piece when the patient died by his own hand. As the result of his observations, the author concludes: *a.* The method of carbolic spray repeated daily for an hour and a half, morning and evening, better than any other method leads to a rapid cure of large varicose ulcers. *b.* In the early part of the treatment, the pains seated in the ulcer disappear. In the three cases observed, no erythema ever appeared at the margin of the wound, nor did the patient ever void the black urine indicating carbolic poisoning. *c.* A state of debility or senility of the patient does not in any way contra-indicate the employment of the method, which, on the contrary, by the local stimulation, which it determines, seems formally indicated in this particular case. *d.* The solutions used are the stronger, as the ulcer is the more atonic; solutions less than 1 to 50 should be rejected, and even the greater strength,  $\frac{1}{30}$ ,  $\frac{1}{20}$ , or even  $\frac{1}{10}$ , could be used. In the interval between the applications of the spray, the dressing of borate of soda and vaseline, 1 to 10 will be found useful.—*Annals of Surgery.*

#### Principles of Plastic Surgery.

In an article on plastic surgery, Mr. C. B. KEETLEY says:

It will be granted that all parts of the

body are susceptible to septic inoculation, therefore one of the first rules of plastic surgery should be: Thoroughly disinfect the parts to be operated on, the hands of surgeon, assistant and nurse, the instruments, sponges ligatures, sutures and dressings.

As a preliminary to the use of such germicides as sublimate and carbolic acid, a prolonged washing and scrubbing with the liquid potash soap of Dr. Duncan, of St. Petersburg, is very useful. This soap has two excellent properties, (1) it is an extraordinarily powerful solvent of dirt; (2) it is itself instantly soluble in cold hard water or antiseptic lotions, so that it may be said to promptly "do its business and go about its business." But, bearing in mind that in plastic surgery, one almost always desires union by the first intention, and that irritants, such as the stronger germicides, are not favorable to that, and ideal plastic operation should be aseptic rather than antiseptic. For this reason I generally, while keeping the instruments in a tray of carbolic, dip them into a basin of recently boiled, not boiling water, before touching the patient with them. But when they are even temporarily laid down again, it should be either into the tray or upon a carbolized towel, disposed around or near the site of the operation. The same recently boiled, not boiling water, is used as a douche and for the sponges. Some persons would prefer boracic lotion. I greatly doubt whether it has, for these purposes, any advantage over the boiled water. If the operation were to occupy days, instead of say half an hour, it would be a different matter.

With regard to ligatures, they should scarcely ever be used in plastic operation. Temporary pressure with sponge or forceps almost always suffice to check hemorrhage. The boiled water used at

a temperature of about  $120^{\circ}$  will assist. Hare-lip pins or silver sutures can be often arranged to not only adjust the parts but also at the same time to control an obstinate vessel. The objections are manifest to a number of catgut knots in a wound where perfect antisepsis is impossible.

I believe it may be laid down as an axiom applicable to surgery in general that even with the aid of antiseptics, the difficulty of obtaining union in a wound without suppuration increases geometrically with the length of time a foreign body is left unabsorbed in the wound. I may not be expressing myself properly, but I mean, for instance, that when in a simple osteotomy, even though it be done antiseptically, a large splinter of bone be chipped off, and left *in situ*, suppuration is ten times more likely than if no such splinter had been made. Very probably it is the case that, even with carefully applied antiseptics, a few germs find their way alive into the wound, but their chance of surviving and multiplying depends mainly upon their finding or not finding some dead or half dead organic nidus to receive them. It is, therefore, particularly desirable to keep catgut out of wounds when complete antisepsis is not only difficult but often impossible.

As a prophylactic against tedious and troublesome hemorrhage, the preference of scissors to the knife for the division of all structures, except occasionally the skin itself, is to be strongly urged. With regard to the skin, in dividing it, the precision attainable with a sharp scalpel is advised.—*Annals of Surgery*.

#### The Treatment of Chronic Leg Ulcers without Rest.

BAUM in the *Deuts. Medicin. Wochens.* affirms that by adopting the following mode of treatment, ulcers of the leg

may be cured while the patient follows his usual employment. First, the whole leg is most carefully washed with soap, shaved, and brushed with sulphuric ether. Then the ulcer is carefully disinfected with a three per cent. carbolic solution, applied by cloths dipped in it, which are kept on for half a day. The leg is then carefully dried and strapped, the strips crossing in front and overlapping at the edges. The plaster must be spread thickly on the linen; breadth of each strip, four to five centimetres ( $1\frac{1}{2}$  to 2 inches). Above the strapping eight layers of carbolic gauze are laid, and fastened with a calico bandage.

Every second day the bandage is taken off, and the carbolic gauze, especially over the situation of the ulcer, is thoroughly sprayed with a twenty per cent. carbolic spirit, then a fresh bandage is applied.

This treatment is continued for four weeks. On removing the whole dressing, the ulcer is found, in most cases, completely healed up. If a small spot should still be open, a small similar dressing is put on.—*Medical News*.

#### Teeth Preservation.

PROFESSOR MILLER in the *Therapeutische Monatshefte* :

The following formulæ are given of preparations that have been tested : Magnes. carbon.; rhiz. irid. flor.; talci; sapon. medicati,  $\bar{a}\bar{a}$  5.0 gram.; ol. menth. pip., gtt. x.; mucil. acac., q.s. ut fiat massa.; calc. carbon. præc., 100.0; rhiz. irid. flor., 5.0; oss. sepiæ pulv. 4.0; sacchar. alb., 2.0; myrrh. pulv., 2.0; mell. et glycerin. q.s. ut fiat pasta.

In respect to a mouth water intended as a preservative of the teeth, the author stipulates that it should not simply prevent the development of the fungoid vegetation, but that it should kill it within one minute. The requirement is

not met, for instance, by peroxide of hydrogen, since a five per cent. solution failed to kill the fungoid growth in fifteen minutes. The following formulæ are given for suitable preparations: thymol, 0.25 gram.; acid. benzoic, 3.00; tinct. eucalypti, 15.00; alcohol absolut., 100.00; ol. gaultheriæ, gtt. xxv.; or ol. menth. pip., gtt. xx. S.—One teaspoonful to be added to a glass of water. Thymol, 0.3 gram.; sp. cochlear., sp. meliss. comp., āā 30.0; tinct. ratanh., 10.0; ol. menth. pip., 0.5; ol. caryophyll., 1.0. S.—Ten drops to be added to half a glass of water.—*Med. Reporter.*

#### On the Use of Ligatures on the Limbs During Surgical Operations.

DR. L. M. SWEETNAM, in an article published in *N. Y. Med. Jour.* recently, gives the following history and conclusions:

A few days ago I was invited by Dr. T. A. Emmet to witness the removal of a large ovarian cyst containing upward of forty pounds of fluid, from a woman of sixty-three or sixty-four: she was considerably reduced in strength and weight, and suffered from a ventral hernia with a history of peritonitis, so that the case was not a very promising one. At the suggestion of Dr. Bache McE. Emmet, and with the consent of the operator, Dr. T. A. Emmet, I applied the ligatures; she took the ether nicely, and came under its influence promptly. The cyst was found to be firmly adherent from the umbilicus to the region of the spleen; separation was effected by the use of the sponge, after the method of Dr. Skene Keith. The entire operation occupied rather more than an hour, and the total amount of hemorrhage would, I am sure, be more than covered by two fluid-ounces. Dr. Emmet took me to see the patient a week later. Her temperature and pulse

were practically normal; in Dr. Emmet's opinion, the use of the ligatures had contributed very largely to her recovery.

The advantages offered are:

1. But little time is lost in securing complete anæsthesia, and but little in waiting for returning consciousness before leaving the patient, the operation being completed.
2. If the bands are applied ten or twelve minutes before the first incision is made, the operation will be a comparatively bloodless one, and the surgeon works more rapidly and more comfortably than he would if the hemorrhage were more severe.
3. Saving of blood to the patient.
4. If collapse appears to threaten the life of the patient, the removal of one or more of the ligatures can be relied upon to bring about a prompt reaction.
5. There is less vomiting and distress after the use of the anæsthetic.
6. The small amount of ether or chloroform used, from an economical standpoint.
7. Fewer ligatures and compression forceps are required to control bleeding.
8. Less embarrassment of lungs and kidneys, and lessened risk of serious injury to these organs if diseased.

Precautions to be observed:

1. In cases where there is a history of purpura it is well to exercise care both as to the amount and as to the duration of the constriction.
2. Where there are marked varicosities of the limbs, these should be supported by rubber or flannel bandages.
3. Where there is no contra-indication, inasmuch as the amount of blood supplied to the heart and cerebro-spinal system is materially lessened, the effect may be somewhat depressing, and for that reason ether would appear to be the better anæsthetic.

I have frequently used chloroform with the ligatures, and so far without noting any unpleasant results; but, whichever anæsthetic is used, the head should lie low, and, if alarming symptoms should develop, I should draw the patient up so that the head would hang over the end of the table, and at the same time loosen several of the ligatures.

4. If the wound, still open, is watched for five or ten minutes after the removal of the ligatures, its color will be seen to deepen very distinctly from the increased quantity of blood flowing to the part. Now, clots, which were sufficient to seal effectually the small vessels while the ligatures were in position, may give way under the increased pressure; in one case, thirty minutes after the removal of a breast, violent hemorrhage set in, necessitating the reopening of the entire wound to secure the bleeding points. If, however, the bands are removed as soon as the last incision is made, there will be but little risk of any mishap of this kind after the sutures have been introduced and the wound has been securely closed.

5. The constriction may with perfect safety be kept up for two hours, but it is well to keep the limbs wrapped in blankets and thus prevent any serious loss of heat.

### VENEREAL DISEASES.

#### Epididymitis and Orchitis.

DR. J. B. JOHNSON (*Medical and Surgical Reporter*):

*The Treatment.*—The relief which rest gives to the inflamed epididymis and swelled testicle indicates that the recumbent posture must be constantly maintained in the treatment of inflammation of these organs; and the ease which the lifting the weight of the enlarged and swollen testicle off the tender spermatic cord affords, likewise

points out the necessity of keeping the bottom of the scrotum on a level with the top of the thighs, while the recumbent position is steadily maintained. This can be easily accomplished by bringing the testicles to a comfortable height by suitable packing between the thighs. A cloth, frequently wetted with the following lotion, should be constantly applied to the scrotum:  $\mathcal{R}$ . Vinegar, water,  $\bar{a}\bar{a}$ ,  $f\ \bar{z}$  vij; tinct. of arnica,  $f\ \bar{z}$  iiss; powd. muriate of ammonia,  $\bar{z}$  vj. Mix. Sig.—Shake well, and keep constantly applied to the swelled testicle.

Having enjoined the recumbent position, and placed the testicle in the right position, the next duty is to adopt such internal or constitutional treatment as will be most likely to relieve the epididymis and testicle of their abnormal condition. My plan of treatment has been very satisfactory to me, and has always afforded me speedy and prompt success. The stomach will be found sick, the tongue coated, the skin hot, the pulse quick, and the bowels constipated. I usually order 5 grs. of calomel and 10 grs. of blue mass, made into three pills, at one dose; and in three hours after the pills have been taken, I have administered a half ounce of sulphate of magnesia, and this dose of salts I direct to be taken once a day afterwards, in order to keep the bowels in a soluble condition. It is a well known therapeutical fact that iodine and its preparations exert a positive effect upon the glandular organs of the body; and in order to avail myself of this physiological action of the iodine preparations, I use the following internally:  $\mathcal{R}$ . Iodide of potassium; bromide of potassium,  $\bar{a}\bar{a}$   $\bar{z}$  j; fl'd ext. of aconite root, gtt. iij; camphor water,  $f\ \bar{z}$  vj. Mix. Sig.—Shake well. Dose, a tablespoonful every hour.



This dose I have continued every hour until the inflammation begins to diminish, and then the interval is made every two or three hours, and the medicine continued at these intervals until the swelling and induration of the testicle have entirely disappeared. At the end of from two to four days the orchitis is so much relieved that a suspensory bandage can be worn, and a cautious return to locomotion permitted. Under this treatment the gonorrhœa is very much benefitted, and by the addition of two copaiba capsules, three times a day, the discharge from the urethra rapidly disappears. If the iodide of potash mixture and the copaiba capsules are continued for twelve days after the gonorrhœal discharge has ceased, a cure will be very surely made.

#### Stricture of the Urethra.

DR. H. J. REYNOLDS in *Journal American Medical Association* :

*Treatment.*—There are four principal methods for treating stricture of the urethra: 1. Gradual dilatation. 2. Rapid dilatation or divulsion. 3. Electrolysis, or the use of the urethral electrode. 4. Cutting or urethrotomy. As there are undoubtedly cases in which for numerous reasons each of these methods may be used to advantage, I may, while the patient is being anæsthetized, briefly describe them.

*Gradual Dilatation.*—To enlarge a stricture by the process of gradual dilatation, conical steel sounds, similar to the ones I now show you, are generally used. The largest sound that will pass through the strictures into the bladder without particular force, or causing the patient any severe discomfort, is to be passed and the same process repeated about every third day, now and then resorting to a larger instrument, as the condition of the canal

will seem to permit. In this way, very many organic strictures of the urethra may, in the course of several months, be enlarged to nearly, if not quite, the normal calibre. Some of the objections, however, to this method, are its slow process, the repeated liability of its provoking reflex urethral troubles, such as the so-called urethral fever, prostatitis, cystitis, etc., especially if the urethra be very irritable, and the fact that in order to maintain the calibre required, the occasional passage of the largest sound, which has been used, seems generally to be necessary afterwards.

*Rapid Dilatation.*—By rapid dilatation or divulsion, we mean the restoring of the complete size of the urethra at one operation by the use of an instrument, such as I now show you, known as a "urethral divulser," an instrument which as you see, when passed into the urethra, may be expanded by various devices, and made to rupture the contracted tissues. In strictures of the deep urethra the tissues, owing to their more unyielding character, may be generally ruptured by this process, and the effect or result is then very similar to what it would be if they had been cut. But in strictures anterior to the scrotum the tissues, instead of always rupturing during the process of divulsion, frequently stretch like India rubber, as it were, and immediately come back when the tension of the instrument is removed, leaving still some contraction, and the latter is one of the principal objections to treating strictures by this method.

*Electrolysis.*—Though there are to me some very important objections to electrolysis as a scientific method of treating stricture of the urethra, it nevertheless has its merits, and is in suitable cases, to say the least, a very useful adjunct in the treatment of stricture.

As it is a fact, however, admitted I think by even its most ardent advocates, that stricture cannot well be enlarged to more than about a No. 14 or 16 English in size, by this method, it is therefore best, if only adapted to the treatment of strictures of small calibre. In treating strictures by this method a galvanic battery, so constructed as to give the best electrolytic effect, is required. A urethral electrode, such as I now show you, which is a metallic sound insulated to within about one-half inch or so of its tip, and so arranged that it can be connected with the negative pole of the battery, and which should be several sizes larger than the stricture to be treated, is passed down and pressed against the stricture. The circuit is now completed by placing the positive electrode on some adjacent part. As to the strength of current required, no definite rule can be laid down; with the ordinary McIntosh battery, from eight to sixteen cells will be necessary. The electrode is now carefully and continuously pressed for several minutes, until it finally passes through the stricture, causing, during the continuance of the operation a certain amount of stinging, burning pain. This operation is to be repeated every week or ten days, using at each time an instrument several sizes larger than at each preceding time. This, then, would complete a rather imperfect description of the method of treating strictures by electrolysis.

As to the merits of this method, it is an unquestionable fact that a larger instrument, if it contains an electrolytic current, can be passed through a very small passage than could be done without the current, as it seems to dissolve its way in, as it were. This I frequently see demonstrated in a very striking manner during the removal of super-

fluous hairs by electrolysis; when the needle, if the current be on, will pass into the tissues without any perceptible resistance. Owing, however, to the fact that with the use of a very large electrode the current becomes greatly diffused, very little electrolytic action takes place, and the effect then becomes very similar, if not the same, as from the use of an ordinary sound. It is obvious, therefore, that this, as a method for restoring the complete calibre of the urethra, is an imperfect one. I occasionally use it, however, when I have a stricture so small that I cannot get any other instrument in, as it is, I think, the best method for enlarging a very fine stricture, preparatory or preliminary to the more radical method of divulsion and cutting, which I always prefer ultimately to resort to, and which I shall now describe :

*Cutting Operation.*—We now come to consider a method that is the most radical, the one we shall use in this case, and I think the best in all bad cases, namely, internal urethrotomy. I think the best instrument ever devised for this purpose is what is known as the "Otis divulsing urethrotome," which may, as its name would indicate, be used for both divulsion and cutting, and we will now proceed to use it in this case. As the meatus is scarcely large enough to admit a No. 22 English, which is the size we propose to pass on this man, after the strictures are removed we enlarge it slightly by putting it on a stretch with this Otis instrument, and withdrawing the blade, cutting down towards the frænum, using the instrument therefore upside down; we now pass it down to a point so that when the blade is slightly withdrawn it comes in contact with the first stricture. We next, as you see, turn the screw at the end of the instrument and stretch

the tissues up to 36 or 37 French, which is shown by the indicator on the end of the instrument. We now withdraw the blade for a distance of about one and one-half inches, and of course, the urethra being on a stretch, divide all the strictured tissues. We now turn off the tension from the instrument and slip the blade back so it is again concealed, and pass it on down to the other stricture and use the instrument in the same manner as before. We next turn off the tension, allowing the two divulsing blades to approximate each other, slip the cutting blade back where it is again concealed, and attempt to withdraw the instrument, but we find that we are unable to do so. The reason of this is that some of the mucous membrane of the urethra has become engaged between the two divulsing blades of the instrument as they approximated each other, and to remedy this we simply again separate the blades slightly by turning the screw at the end, and the instrument, as you see, is withdrawn with ease. A No. 22 English, which is about 36 French, we now find passes of its own weight into the bladder. As the hemorrhage is insignificant nothing further is at present required. You now see that, for the time being at least, the contractions of the urethra have been entirely removed.

It now remains to look after the after-treatment properly, which is as important to the ultimate success as the operation. This will consist of passing a full-sized sound, which in this case is the sound we have just passed (22 English), about every third or fourth day, until the parts have become completely healed, which generally requires from one to two months. For the first few times the passage of this sound will cause a certain amount of pain, but it will be seen that by persisting in the

constant use of it until the parts are entirely healed, the complete calibre of the urethra must be restored, and once being restored in such a manner that there is no contraction whatever remaining, there will very rarely be any subsequent contraction. In the meantime the patient should receive such internal remedies as are indicated from time to time. We will prescribe for the present the citrate of potash, in quantities sufficient to render the urine neutral or alkaline, and therefore less irritating to the urethra than if it were highly acid in character.

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## DISEASES OF THE EYE AND EAR.

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### Injuries of the Drums causing Dizziness.

A YOUNG man recently received a severe blow over the left ear, from a wagon stake, and was knocked senseless for a while. The ear bled freely at the time, and after recovering from the headache and the immediate effects of the blow, the patient found that he had a difficulty in hearing with the ear which had been injured, and complained of a sense of numbness, or a "muffled feeling" therein. The history of the case showed plainly that there had been a rupture of the membrana tympani, but when I examined the ear, two weeks after the injury; there was no sign of a rent, the injury having healed so perfectly that I could not even discover its previous location. The patient, however, was so dizzy at the time that he could not walk straight, and staggered about like a drunken man. The cavity had evidently filled with blood at the time of the injury. Catheterization of the drum was performed, and I found it very difficult to get the air into the cavity. The operation gave great relief to the patient, but it lasted for a few minutes only. While

there might have been other injuries inflicted by the blow in this case, I think the dizziness resulted entirely from the obstructed condition of the drum. In a recent case a similar phenomenon was observed. A young woman slipped and fell, striking the side of her head flat against the pavement. She at once noticed that her hearing was muddled, and that the ear on which she fell "felt as though it had been stuffed full of something," to quote her own words. On attempting to stand, she found herself so dizzy that she was compelled to catch hold of something to support her. Twelve hours after the injury I made an examination, and found a bloody line just behind the handle of the malleus, and running its entire length, showing that the rupture of the membrane was an extensive one. While the ear did not bleed any externally, the drum cavity was most likely filled with blood. As the injury was still fresh, and the rupture was nicely coapted, but not yet healed, I thought it best not to interfere at the time, but told the patient to return later, which she has not yet done. The cases are given to illustrate the point hitherto made that great dizziness frequently results from the filling up of the drum cavities, and that, in fact, very grave brain symptoms are frequently traceable to this cause, especially in childhood.—*St. Louis Med. and Surg. Journal.*

#### Emphysema of the Lids.

THIS is usually the result of violence. There must always be some abnormal communication between the cellular tissue of the orbit and lids and the air cavities before it can take place. There must not only be a fracture of the bone somewhere, but a break in the periosteum externally. Then when the nose is

blown the air is forced directly into the connective tissue. Some time ago a "street-walker" fell from a door-step to the pavement, and struck on the side of the face. The first time thereafter that she had occasion to blow her nose the left lid suddenly swelled so tightly that she could not voluntarily open the eye. The history of the accident, and the crepitation of the air under the skin settled the diagnosis. No treatment is necessary for the emphysema, as the air will soon absorb and vanish. If the tumefaction is very great, several small punctures may be made through the skin, and the air allowed to escape spontaneously or by pressure.—*Ibid.*

#### Contribution to the *Ætiology* of Affections of the Middle Ear in Childhood.

DR. E. PINS, says in the *Jahrbuch für Kinderheilkunde*, that diseases of the middle ear are exceedingly common in childhood, and especially in the first few months of life. The exciting causes of these diseases are numerous, and most of them are well known; but, in addition to those which are described in the treatises on ear diseases, the author lays stress on the following: 1. The entrance of water into the external ear during the daily bath. 2. The difficulty of keeping the nose clean in children; the secretions are apt to remain in the nose, to decompose and to set up catarrhal and putrid inflammatory conditions of the nasal mucous membrane, which spread to the middle ear. 3. Catarrhal pneumonia is very frequently attended by middle ear disease, as is well known to be the case with croupous pneumonia. As regards symptoms, the boring of the head on the pillow is dwelt on as one of special importance under the first heading. The three causes enumerated are dealt with in



detail with reference to their differential diagnosis and treatment.—*Edinburgh Med. Jour.—Med. and Surg. Reporter.*

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### DISEASES OF THE SKIN.

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#### Red Chromidrosis.

At the last meeting of the French Association for the Advancement of Science, held at Toulouse, M. Andrés of that city reported a case of red chromidrosis. The patient was a young man of 22, not hysterical, who was affected with a red or rose-colored transudation on each wrist and under the finger-nails. A microscopic examination showed it to be composed of reddish granules, isolated or mingled with epidermic cells. M. Le Roy de Méricourt, who reported the first case of this nature to the Paris Academy of Medicine, March 25, 1884, declared formally that he entertained no doubt whatever that this was another case. While a large number of cases of colored sweat have been reported, there are very few, indeed, that are genuine. Late researches made of supposed cases of this trouble have generally revealed bacteria or some micro-organism as the cause of the coloration, and it is only those in which careful microscopic examination has been made, that can be accepted as genuine.—*St. Louis Med. and Surg. Journal.*

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#### Diet in Skin Diseases.

DR. JAMES C. WHITE, in an interesting paper on the above subject (*Journal of Cutaneous and Venereal Diseases*) states, among other things, that alcohol in excess may permanently enlarge the facial capillaries, produce dermatitis and furuncles, and other inflammatory troubles. Acid fruits produce in some persons acute eczema, the type being

erythematous and papular. Strawberries produce urticaria. Apples sometimes produce an acneform eruption about the mouth. In children they produce the so-called "apple humor" at times. This consists of clustered vesicles or shallow impetiginous or ecthymatous lesions on the lower part of the face. Some nuts, especially the English walnut, produce an irritation of the lining membrane of the mouth in some. A herpetic eruption about the edges of the lips may also be caused. Lobsters, crabs, mussels, oysters, clams, etc., produce urticaria in a limited number of persons. In some again a particular meat has the same effect. These are important points to bear in mind, not only when prescribing a diet for a patient, but also in an examination, as they may often account for the skin trouble which is present.—*Ibid.*

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#### Eczema of the Eyelids.

LAILLE recommends in the *Union Médicale* the following:  $\mathcal{R}$ . Acid. acetici (crystalized), gr. iii; aquæ laurocerasi, f 3 v; glycerini,  $\mathfrak{M}$  lxxv. M. Sig.—To be painted on daily with a brush.—*Med. and Surg. Reporter.*

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#### A Useful Hair Tonic.

Castor oil, 1 pint; alcohol, 1 pint; tincture of cantharides, 1 oz.; essence of bergamot, 3 ij. Color with alkanet. Allow to stand for two days and filter.—*Chemist and Druggist.* Probably any ordinary coloring matter, such as logwood, will do as well as alkanet.—*Ibid.*

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#### Eczema Rubrum.

PROFESSOR HOLLAND ordered for a case of eczema rubrum:  $\mathcal{R}$ . Kaolin; olei lini; zinci oxidi; liq. plumb. subacetatis,  $\text{āā}$   $\text{ḡ}$  ss. M. Sig.—Apply locally.—*Coll. and Clin. Record.*

## FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

### Triangular Cushion Splint for the Treatment of Fractures of the Humerus.

DR. A. B. SPACH (*Medical Era*):

The triangular cushion splint, which I devised two months ago for the treatment of a case of fracture of the humerus then in our wards, has now been in use a sufficient length of time to permit of its merits being fully tested. The result has been so very satisfactory in all respects that I now feel full confidence in giving it to the profession.

First, let me describe its method of construction.

*Directions:* Measure from the level of the shoulder to below the elbow on the uninjured arm; with this distance, and about four inches wide and half an inch thick, construct two triangular pieces from some light wood, such as pine. Firmly unite their bases at right angles. From some strong material, such as bed-ticking, cut out a square piece, tack it to the edges of the triangles on

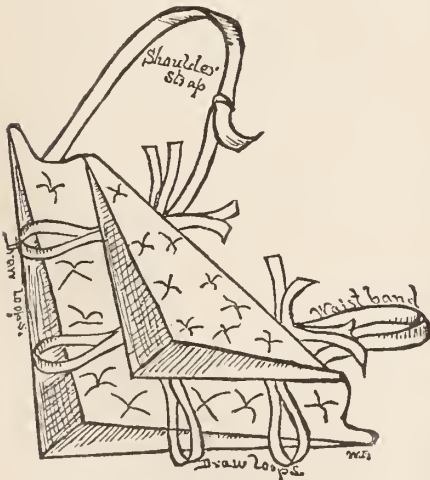


Fig. 1.

one side, fill the space thus made with horsehair, cotton, or some light material; lap over the other piece of cloth and

tack it to the other sides of the triangle, rounding out the upper and lower corners, as seen in Figure 1.

Measure from within an inch of the axilla to the bend of the elbow on the uninjured arm. With this distance, and the bases three inches, construct a similar and smaller triangular cushion. Stitch to the larger cushion, with two



Fig. 2.

lower and two upper draw loops running between the two, and through which the arm is to pass. The sides of the smaller cushion are to be at equal distances from the sides of the larger.

Carefully mould a piece of Russian felt or heavy cardboard to the arm, from the shoulder to the elbow, padding it with cotton, and apply it with the roller. Pass the arm through the loops in the cushions; make the loops tight, fasten the cushions to the body with the strap going over the shoulder, and the one going round the body, as shown in Figure 2.

The splint, thus constructed and applied, possesses the following

*Advantages:* 1. Perfect immobility of the shoulder.

2. Perfect immobility of the fragments of the broken bone.

3. The requisite amount of extension can easily be made whenever there is shortening. This is done by padding well the lower border of the smaller cushion, and securing the forearm snugly by means of the draw loops.

4. Perfect apposition of broken fragments.

5. It is applicable to fracture at any part of the humerus.

6. It is light and comfortable to the patient.

Its construction is not so formidable a matter as the description might make it appear. A little material, a little tact, and an hour's time will serve to complete one in good shape.

I have now used this splint in cases of both simple and compound fracture of the humerus, and in every instance with perfect satisfaction.

Among its many merits, its chief one is the perfect immobility which it secures.

#### Theory and Practice of the Operation for Radical Cure for Hernia.

W. T. STOKER, Professor of Anatomy in the Royal College of Surgeons, Ireland, in a paper on this subject read before the British Medical Association, at Dublin, and published in the *British Medical Journal*, says that the open operation is beating other operations out of the field, because it offers certainty and precision, and because it has become a safe operation under the teachings of Lister. He, however, raises his voice against the practice of securing approximation of the walls of the inguinal canal by means of sutures of silver wire; because, when once the hernial canal is closed and consolidated, they become sources of possible inconvenience or danger, or irritation, and also interfere with subsequent application of an artificial support. He declares that the best and most permanent closure depends on the exudation and organization of lymph, and the consequent consolidation and drawing together of the parts, which is assisted by such a plug as the twisted sac is capable

of affording. He has adopted the plan of twisting the sac in all his later operations. The following is his method of operating.

The sac is exposed by an incision extending downwards and inwards from the external abdominal ring as far as may be necessary. In ruptures in infants, one inch and a half is generally a sufficient length; in adults or in youths with a large rupture, it may require to be two inches and a half or three inches long. The sac having been exposed, must be carefully and laboriously disconnected from the elements of the cord. This is often a very tedious process, and is best effected with the director and a pair of small scissors. In congenital and infantile herniæ, which constitute the bulk of those operated on in young subjects, the isolation of the sac is often particularly tedious. As soon as the sac is well separated as high as the external ring, and for an inch or so downwards from that point, it should be included in two catgut ligatures and divided between them. The lower ligature serves to close the tunica vaginalis if it is a part of the sac, as it generally is in congenital cases, while the upper one seals the peritoneal cavity. If the sac should be of great size, as much of the distal portion of it as is advisable may be removed. The proximal portion of the sac is then seized and twisted, the torsion being carried to such a degree that a sense of resistance is felt. It is difficult to lay down a rule as to the amount of force to be employed in twisting; the object of the operator should be to secure as complete closure of the sac, as close approximation of the walls of the canal, and as much tension and obliteration of the inguinal pouch as is possible, without incurring the danger of the contorted sac sloughing from too severe treatment.

Two sutures of silk are then introduced. Each is made to pass through the pillars and walls of the canal, and to transfix the twisted sac between the inner and outer walls. The sutures should be brought through the skin about an inch from the incision on each side, and the ends of each tied "button" fashion over a leaden plate. Deep apposition is thus secured, and the twists are retained in the sac. Points of interrupted suture are then inserted in the skin, and the wound dressed antiseptically. In very young children a single deep suture may suffice.

He closes his paper by summing up his opinions on the subject of this operation in the following propositions :

1. That, particularly in young children, operation should only be undertaken when minor measures have failed or are inapplicable.

2. That on the ground of its safety, certainty and precision, the operation by dissection is to be preferred.

3. That twisting the sac is a safe and efficient aid to the operation.

4. That sutures, so far as their use in closing the canal is concerned, serve but a temporary purpose, and that their chief end is to excite a sufficient lymph exudation.

5. That sutures, therefore, need not be introduced tightly, and that trouble from testicular swelling may be thus avoided.

6. That the permanent retention of wires is unnecessary, possibly hurtful, and bad in theory and practice.

7. That while a uniform support to the inguinal region is desirable for some time following operation, it cannot safely be afforded by a truss furnished with a pad.

It is proper to state, in this connection, that Kendal Franks, surgeon to the Adelaide Hospital, Dublin, at the

same meeting of the association at which Mr. Stoker's paper was read, strongly advocated the use of silver wire for sutures. He says he has used it in all his cases except one, a femoral hernia, and regards Mr. Stoker's objections to it as theoretical and unsupported by practical experience.

#### The Treatment of Vein Wounds.

IN a lecture recently delivered before the Medical Society of Berlin, by Dr. HANS SCHMIDT, the speaker said that the happy results obtained by Kuster in the treatment of wounds of the larger veins by means of closing the opening with Koeberl's vein-clamps or forceps, led him to further study on the subject, and to a series of experiments on rabbits. He laid bare the vena jugularis externa communis, and vena femoralis in different animals, cut into them, and then closed the wounds with *serres-fines*. These he allowed to stay in the vein. The wound was then bandaged antiseptically, and in twenty-four hours the clamps were removed. In six to fourteen days the part of the vein operated upon was cut out and examined. In most of the cases the calibre of the vein was unaltered, no thrombus having been formed. In no case had there been any after-bleeding; all the operations resulted aseptically.

The questions which Dr. Schmidt sought to answer by these experiments were as follows :

1. How long must the clamps remain on the veins in order to insure a secure temporary closing of their walls? *Answer*.—It seems right to remove them in twenty-four hours.

2. How long may the clamps be kept on the veins without causing gangrene? *Answer*.—In no case were the clamps kept on longer than forty-eight hours, so the above question must remain open.



In practice the clamps should always be removed in twenty-four hours. If there is still an inclination to bleed, it is the fault of poor antisepsis, and the vein should be ligatured above and below the wound.

3. Does the circulation continue in the vein so treated? *Answer.*—Yes. In two cases where the vessel was obliterated it was considered that too much of the walls of the vein had been caught in the clamp.

4. How does healing take place? This question cannot be answered, as the wounded vein was naturally hidden in the flesh during healing.

5. How long, after the removal of the clamps, did it take for the vein to heal securely and completely? *Answer.*—Two weeks. Up to the tenth day the wound would burst open again, if fluid was injected into the vein with moderate pressure.

6. In longitudinal wounds of the veins can the same method of using clamps be resorted to? *Answer.*—Yes.

In conclusion, the writer cites seven cases of vein wounds, which were treated in the Augusta Hospital. Two were injuries of the vena subclavia, one of the vena axillaris, three of the vena jugularis communis, and one of the femoral vein.

In every case the clamps were kept on for twenty-four hours. There were no after-bleedings, and the circulation was unchanged, so it could be taken for granted that the calibre of the vessels was unchanged.

In the discussion which followed, Dr. Bardeleben called attention to the fact that where the vein had been exposed for some time the use of clamps would endanger its nourishment, and in such cases double ligaturing should be practised.—*Berlin Kl. Woch.—Therapeutic Gazette.*

#### Open Incision and Immediate Rectification in Congenital Club-foot.

In an article on this subject, read before the New York Academy of Medicine, on Dec. 12, Dr. CHARLES N. DIXON says:

A description of the treatment of club-foot will be facilitated by a division of the deformity into the following three classes: 1. Those that can be easily reduced by manipulation. 2. Cases in which there are contractures of fasciæ and tendons. 3. Cases in which all the tissues are greatly shortened.

It is a common observation that certain cases of club foot in young children when handled and manipulated, can easily be placed in a normal position; whereas in other cases in which the deformity is less marked, little can be effected without the aid of the knife. It is only in this first class of cases that manipulation and fixation will lead to a permanent result. In the great majority of cases it is but a waste of time to attempt to treat the deformity without division, at least, of the tendo-Achillis and plantar fascia.

It has been my practice, previous to any operative interference whatever, to subject the foot to a thorough process of manipulation and in this way discover the amount of resistance that it is necessary to overcome with the knife, and at the same time eliminate all fibrous bands and adhesions that readily yield to the force of the hand. All who have had much experience in the treatment of talipes must have observed that even in the infant under chloroform the clubbed foot, when pressed by the hand or other force, into the best position it can be made to assume, immediately on removal of the pressure springs back into its abnormal position. It is, however, possible by a few minutes' manipulation and pressure so to over-

come the resiliency of the tissues that the foot does not readily spring back into its old position. If the foot be grasped by both hands of the surgeon and gradually but persistently unfolded and twisted into a normal position, at first it gradually yields and becomes improved in position, but soon the shortened structures on the inner side of the foot become tense and refuse to yield; it now becomes a contest between the muscles of the surgeon and the resistance of the deformed tissues. If the force be steadily continued and even increased, not by fits and starts, but continuously and persistently, the soft tissues still further yield, the bony surfaces glide on each other, and the foot assumes a position more nearly approaching the normal than would have been thought possible. If at any time during this operation there seems to be danger of fracturing the bones, the force used should be intermitted but not entirely let up. If the operation is well performed, at the expiration of ten minutes or so the elasticity of the tissues seems to be exhausted and the foot lies limp and flaccid, without that tendency to spring back which it had previously possessed. More can be accomplished in ten minutes by manipulation in this way than by ten weeks of plaster dressing according to the old method. It must be remembered, however, that only the simplest cases can be successfully treated without operation, but this preliminary manipulation should form a part of the treatment of club-foot in all its various degrees. Most cases will require at least division of the tendo-Achillis and plantar fascia, and the general rigidity of the foot should be the guide in determining the future extent to which the tendons, fasciæ, and ligaments need division.

Whenever the tense structures on the

inner side of the foot prevent its unfolding and rectification, owing to their short condition, they should unhesitatingly be divided by open incision. In this way the time necessary to a cure is shortened, and the tendency to relapse is diminished, and the treatment of congenital talipes is placed on a sound anatomical basis. As Dr. Phelps puts it: "More can be done with a scalpel or tenotome in five minutes than can be accomplished in weeks and often months by all the mechanical appliances known to surgery."

In the second and third classes of cases operative procedures are always necessary. As Dr. Lewis Sayre well says, "contractured tissues cannot be stretched." The distinction between these two classes of cases should be left to the judgment of the surgeon.

It should be our aim to produce rectification of the deformity, with as little operative procedure as possible. In many cases the subcutaneous division of the plantar fascia, together with one or more tendons, will be all that is necessary, and after their division the distortion can be reduced. But if after subcutaneous division of these structures the foot cannot be replaced, it is better to perform the open operation and divide the tendon of the tibialis posticus, the internal lateral ligament, and all other tissues which offer resistance to the complete redressment of the foot, if necessary, extending the incision to a linear section of the astragalus and other bones of the tarsus.

*Operation.*—The method of operation is as follows: Thorough antiseptic precautions being observed, so as to secure organization of the blood-clot according to the Morris-Schede method. The foot is rendered bloodless by means of an Esmarch bandage. First, the tendo-Achillis is divided subcutaneously, and

the foot thoroughly flexed, so as to overcome the equinus. Then an imaginary line is drawn from the process of the internal malleolus to the tuberosity of the scaphoid bone. Taking the middle portion of this line, an incision is made downward and slightly backward, across the inner side of the foot, following the direction of the transverse wrinkle for a distance of an inch and a half. The nerve and artery may be protected by being drawn to one side of the wound by means of a blunt hook, which is held in the hand of an assistant. The foot is gradually unfolded, and the shortened and contracted structures are divided as they present themselves and offer resistance to replacement, in the following order: skin, connective tissue, tendons of the tibialis posticus, flexor longus digitorum, abductor hallucis, flexor hallucis longus, together with the internal lateral ligament. A tenotome should then be glided beneath the skin, so as to divide the plantar fascia and the muscular structure of the flexor brevis digitorum. These tissues should be cut by a series of nicks rather than by a prolonged incision. The wound is allowed to fill with coagulated blood, and dressed with Lister's protective, sublimate gauze, and a plaster bandage. The first dressing is allowed to remain four weeks, at the end of which time the wound should be healed.

*After-treatment.*—After the wound is entirely healed, a water-glass shoe is applied, with which the patient is allowed to walk. The glass shoe, if it does not become wet, retains its shape for six to twelve weeks. Hausmann, of Hamburg, recommends for the after-treatment a shoe which is made as follows: The toes are thoroughly padded with cotton-wool, then the foot is covered with a woolen stocking. A

strip of tin one inch in width is applied along the dorsum of the foot, in order to protect the skin when the shoe is cut off. A sole formed of stiff paste-board is fitted to the foot, and over this another stocking is fitted. A plaster bandage one and a half inches in width is then applied to the foot, so as to form a shoe extending up to the ankle-joint. While still moist, the plaster cast is cut down the dorsum and sprung off. The shoe thus formed is thoroughly dried in an oven, and covered with leather, so as to make a shoe which can be laced up and removed from time to time.—*Med. News.*

#### Removal of Needles from the Heart.

THE *Central. f. Chirurgie* contains the following account of a case of STETZNER'S, communicated to the German Surgical Society: A student, after a spree, sought to commit suicide by driving a sewing needle into his heart. Twelve hours after the introduction of the needle the first serious symptoms made their appearance. He then had pain in the cardiac region, difficulty in breathing, and a loud pericardial murmur at the apex. After thirty-six hours the symptoms became so very serious that an operation for the removal of the foreign body was determined upon. No trace of the needle being found either under the skin or in the intercostal space, a piece of the fifth rib was resected, thus opening up the left pleural cavity, then the pericardium was opened up, and about a teaspoonful of cloudy pericardial fluid ran out, and now the needle could be felt lying diagonally in the right ventricle. They succeeded in driving its head out through the anterior wall of the heart, and then fixing it in this position with the fingernail. The irregular and violent beating of the heart made it very difficult to

catch the foreign body with the forceps, and, in attempting it, it again slipped into the ventricle, but this time assuming a vertical instead of a diagonal position, rendering it impossible to make any further attempt at its removal; and besides this an iodoform tampon, used to block up the hole into the pleural cavity, was drawn into the cavity by a very deep inspiratory effort. The tampon could not be found again. The wound was thoroughly tamponed, and the patient recovered in four weeks, although in the meantime he had suffered from a severe pneumo-thorax, with copious exudation. At present the patient enjoys good health, and feels no effects from his escapade. There is neither heart murmur nor, abnormal pulse, nor any trace whatever of the plural exudation. Where the needle now is, is, of course, mere matter of speculation; it may be in the heart, or it may have gone on into the mediastinum.

Dr. Iver Hardt has collected together, out of medical literature, twenty-two cases of needle in the heart, of which nineteen were found accidentally on making autopsies. In three cases the needles had been driven into the heart accidentally, and penetrated such a short distance that they were easily extracted.

No case similar to the present, in which the heart has been laid bare by splitting the pericardium, is mentioned in medical literature.

In the discussion upon the paper, Hahn, of Berlin, showed the half of a knitting needle which V. Bergmann had removed from the heart of a girl eleven years of age. It had been driven into her breast by a blow from a slipper. The patient suffered immediately from asphyxia, and was removed to the hospital. Under the left third rib, between the parasternal and mammillary lines,

a black point could be seen, which was felt to be the end of the needle. There was a blowing, systolic murmur at the apex. As the needle was slowly withdrawn, it was seen to have a distinctly pendulum movement. Immediately after the extraction, the previously very rapid pulse sank to ninety per minute. The needle was withdrawn very slowly, in order to give time for a clot to form in the punctured wound, and thus avoid hemorrhage into the pericardial sac, which in some cases of punctured wound of the heart, has been the cause of death. Von Bergmann said that he thought there could be no doubt in this case of the puncture of the heart muscle by the needle, because the murmur changed in character while the needle was being withdrawn, and when completely removed, the murmur ceased entirely.—*Pacific Med. & Surg. Journal.*

#### On Cold Abscesses.

*The Medical and Surgical Reporter* has translated an article by Professor TERRILLON, on cold abscesses, of which we quote the following on treatment :

It remains for me now to indicate the treatment of cold abscesses. When you have only the scrofulous gummata to deal with, even supposing pus to have formed, but the tumor to be of little size, and the general health not to be suffering but improving, you are warranted in waiting ; a cure is possible by resorption, or after one or two aspirations.

When the abscess is larger and more extensive resorption is impossible, the sac should be freely opened, for puncture by the aspirating needle or trocar, in these conditions, is generally insufficient ; the liquid is, in fact, reproduced by reason of the want of vitality of the abscess walls. The best way, then, in these cases, is to interfere energetically.



cally, and to perform thorough ablation of the sac, as M. Lannelongue has indicated. This practice is certainly the best when the sac which limits the abscess can be readily enucleated. You then dissect out the sac, bring together again with stitches the soft, bleeding parts separated by the dissection, and put in a drainage-tube to facilitate the flow of liquids; thanks to the methodical compression of antiseptic dressing, the tissues reunite, and the cure is soon complete. It is necessary, however, to take care to remove the prolongations of the cavity, a task often difficult of execution when the walls are thin and soft.

By another curative method, which is more particularly applicable where the sac cannot be removed in its totality (as is, in fact, most frequently the case), you open widely into the abscess and scrape the internal surface of the sac with a sharp spoon or cutting curette, taking care to destroy the fungosities; then the two surfaces are brought together with a stitch or two. If reunion seems impossible it is better to stuff the cavity with iodoform gauze, and protect the whole by an absorbent dressing, as I have done in the case of our patient. The cure is slow but sure.

A third method consists in making a free opening and cauterizing thoroughly the sac with the thermo-cautery, in order to destroy all the fungosities. You have then nothing but a large eschar, formed by the diseased parts thus profoundly modified. This method is slower, less active, and less energetic; therefore, I will only counsel it in a restricted number of cases. At the same time, the employment of the thermo-cautery has given me excellent results in a special variety of multiple cold abscesses, many instances of which I could cite, occurring in the fold of the groin, in the axilla,

neck, etc. They present themselves under the aspect of little violaceous masses with numerous holes, giving to the region the appearance of a ball-sprinkler. In those cases where there exist multiple abscesses, diverticula, detachments of tissue, and fistulous tracts extending in different directions, total ablation is impossible, and curetting, which is ordinarily incomplete, has no efficacy. It will be necessary, then, to open up all the fistulous tracts, cauterize the fungosities, transform the multiple diverticula of the abscess into a sloughing surface, and bring into full view all the detached shreds of tissue. In this way only will you obtain complete cure.

The different modes of treatment which are now everywhere in fashion, and are absolutely safe, owing to the employment of Lister's method, and especially of the iodoform gauze with which the abscess cavity is stuffed, are likely to be in a measure superseded by a method lately devised by Moseitg-Moorhof, of Vienna, and recommended in France by Verneuil. This new method is chiefly applicable to large abscesses with huge pouches, in which a radical or bloody operation seems difficult or dangerous. Starting from the principle that iodoform is an excellent parasiticide, which prevents the development of tubercle bacilli, the Vienna surgeon conceived the idea of putting this substance in contact with the walls of the cold abscess, and in such a way as to attack the microbes in their innermost haunts, and to do this thoroughly and permanently. To attain this result, it is necessary to empty the abscess as thoroughly as possible with an aspirating trocar, and wash out the cavity with a solution of carbolic acid, in order to remove the caseous particles which may be too thick to run easily. After evacua-

tion of the sac, a variable quantity (according to the size of the cavity) of ether is injected, holding in solution iodoform in the proportion of five per cent. The quantity of the liquid thus introduced in the largest sacs ought not to exceed four ounces, for fear of accidents which might result from the absorption of too great a quantity of iodoform. The liquid is allowed to flow out after a few minutes, but a certain quantity remains in the cavity. The surface of the latter is soon lined with a thin layer of iodoform. Under the influence of this agent the pain is moderate, and the reaction not severe; but the sac soon fills again with a liquid and with gas, swells and becomes slightly painful. After a few days all irritation is allayed, and we see the liquid undergo resorption, and the cavity and the tumor growing smaller. One may, in some cases, obtain a complete cure after several weeks, often as the result of a single injection. When one injection does not suffice, the operation may be repeated after a month or six weeks; two or three suffice for the largest sacs.

#### Drainage Tube for Thoracic Cavity.

DR. ALLIS has devised a very ingenious drainage tube for draining the thoracic cavity. It is made by taking a piece of ordinary-rubber tubing of proper size, quartering lengthwise about one inch, passing the divided portion through a piece of adhesive plaster previously perforated the size of tubing, and turning the cut ends down and securing them by another similar piece of plaster, the two adhesive surfaces approximating. When the tubing is inserted, it is even with the surface of the body and kept there by the plaster; not inconveniencing the patient in any degree, who can move without danger of displacement. This simple contrivance is easily made,

and has been used several times with satisfaction in the wards of the Jefferson College Hospital.—*Coll. & Clin. Record.*

#### Dr. Gross on Catgut Ligatures.

PROFESSOR GROSS condemns the use of carbolyzed oil for preserving catgut ligatures, as it forms a nidus for germs—ten per cent. of carbolyzed water does the same thing, unless changed every two weeks—but he recommends the following way to preserve them: Take the animal ligature, prepare a 1-5 aqueous solution of chromic acid:  $\mathcal{R}$ . Acid chromic.,  $\mathfrak{z}$  j. aquæ  $\mathfrak{z}$  v. M.

Add one ounce of the above solution to five ounces of glycerin, place the ligatures in this solution, leave for one week; this makes them strong; take out of this solution and hang up until perfectly dry. Placed in the following solution, they will keep until needed:  $\mathcal{R}$ . Alcohol., p. xv; glycerin., p. j; acid. carbolic., 10%. M.

Thrown into a 1-1000 solution of corrosive sublimate a few minutes before using, they become pliable.—*Ibid.*

#### Permanganate of Potassium in Toothache.

THE following formula has been suggested by Dr. POPOFF:  $\mathcal{R}$  Potass. permang., 3 grains; aq. destil. or fontanæ, i (Russ.) fl pound.—Misc. One tablespoonful to be taken in the mouth, every half hour, and to be held therein on the affected side for several minutes. The most agonizing pain is said gradually to disappear in a few hours.—*Russ. Meditz.*

#### Pain Obtunder After Extraction.

L. P. BETHEL, D.D.S., in *Ohio Dental Journal of Dental Science*: 'Take sulphuric ether, one ounce, oil of cloves, three drops, and carbolic acid, one drop. Apply to the cavity on cotton, and let it remain a few minutes before removing.

## VENEREAL DISEASES.

### Gonorrhœa.

DR. ILLINGWORTH (*British Medical Journal*) commends the use of biniodide of mercury in gonorrhœa, given in solution of iodide of sodium, as follows: R. Liquor. hydrarg. bichlorid., f ʒ ij; sodii iodidi, ʒ ss; liq. morphinæ (b. p.), f ʒ ss; sodii bicarb., f ʒ ss; zinci sulphat., gr. x; aquæ, ad f ʒ vj. M. Use as an injection. —*Coll. and Clin. Record.*

### Blennorrhagia.

For blennorrhagia, RICORD prescribes (*Revue Générale de Clinique*) the following: R. Zinci sulph., gr. xv; plumbi acetat., gr. xxx; tinct. catechu., tinct. opii (Sydenham's), āā ʒ xlvi; aquæ rosar., ʒ l. M. Sig.—Use for injection.

Mauriac recommends that tannin be substituted for acetate of lead, and subnitrate of bismuth for tinct. of catechu. —*Ibid.*

### Treatment of Gonorrhœa.

LEDETSCH very warmly recommends (*Prager Med. Woch.*) quinine as a remedy for gonorrhœa, and uses the following formula: Quininæ bisulph, 1 part; glycerin, 25 parts; aq. dest., 75 parts. M. At the beginning, this is to be injected three times a day, then, after a time, twice a day, and later but once a day.—*New York Medical Journal.*

### Fluid Extract of Pichi in Vesical Catarrh.

DR. H. S. DELAMERE, of Lubec, Me., in a letter to the *Medical Record*, referring to the use of pichi in the treatment of catarrh of the bladder, relates the following case:

A. B——, aged twenty-eight, had been suffering for two years from vesical catarrh. He had had gonorrhœa, but a 21 (French) bougie passed without difficulty, causing, however, considerable

vesical tenesmus. When called to see him Dr. Delamere found that he was passing urine every hour during the day, and four or five times during the night. The urine was alkaline, ropy, and ammoniacal, and the microscope revealed pus. The usual remedies prescribed in country practice, such as buchu, uva ursi, etc., were used, but without benefit. The bladder was then washed out by means of the double-channel catheter, with the effect of relieving the patient slightly. The least exposure, however, aggravated all the symptoms and caused as much suffering as ever. After about a year and a half of constant treatment, with no other result than to keep the disease at bay, fluid extract of pichi was tried. After the patient had taken it a few days he expressed himself as feeling better, only getting up twice during the night. But, while obliged to wait for a fresh supply, the patient grew worse, being obliged to get up three or four times during the night. As soon as the drug arrived it was given him, in doses of twenty drops four times a day, which dose was subsequently increased to thirty drops. In a few weeks the patient was so much better that washing out of the bladder was abandoned, and at the time of the report he was at work, the urine being clear, free from mucus and pus, and with no ammoniacal odor. He slept well and did not have to get up more than once during the night. Although he recently suffered from a severe cold, the bladder trouble did not return. The man's general appearance is healthy, appetite good. —*Med. and Surg. Reporter.*

### The Examination of Semen.

THE microscopical examination of semen becomes of interest to the physician in two classes of circumstances, one purely clinical, the other medico-legal.

¶1. It is of clinical interest and value in those cases where there is a question of spermatorrhœa, and in cases where the physician is consulted by a patient desirous of knowing whether he (the patient) is capable of procreating or not. The first class of patients are the most numerous, and in these cases the examination is absolutely the only method of differentiating between true spermatorrhœa and prostatorrhœa, or between the former and certain urethral catarrhs.

2. The medico-legal examinations of, or for, semen becomes necessary in cases of alleged or suspected rape, attempts at violence, etc., and are frequently of the highest importance, the liberty and even life of accused persons depending upon the skill of the examiner.

*Normal Semen.* As suggested in the remarks introductory to the examination of urine, the first essential in examinations where valuable clinical results are to be obtained, is that the observer should be thoroughly familiar with the normal appearances of the matter under examination. Without this knowledge he cannot hope to detect pathological changes, and for it he must not depend on plates and pictures in text books. These are well enough in their way, as helps and as guides telling him what to look for, but the best picture ever made, the most accurate steel plate or photograph cannot teach the eye one-tenth so much as one glance through a microscope at a properly prepared slide. Let the rule therefore be absolute; always study for yourself the normal matter until you can recognize the slightest departure therefrom.

Further: as all organic matters and especially all secretions and excretions of the animal organism have a tendency to change on exposure to the atmosphere, and to assume different appear-

ances after lapses of time varying from a few seconds (as in blood) to several hours, these changes should be learned by actual examination of the normal matters at varying periods. In this manner only, can their histological history be learned. This is especially true of semen, and without wishing to depart from the true objects of our work, for the convenience of the student we will briefly recapitulate here the micrography of normal human semen.

Freshly ejaculated, semen consists of a viscid, semi-opaque, opalescent, whitish fluid, about the consistency of cream. This fluid does not consist solely of true semen, as found where secreted, but contains numerous morphological elements and secretions taken up and carried with it in its journey from the seminiferous tubules to the outer air. The vasa seminalia, the efferent vessels, the vascular cones, the epididymis, the deferent vessels, the seminal vesicles and the urethra, each and all contribute something, liquid or solid, to the fluid called semen. Even Cowper's glands, the prostate and the urethral mucous add their secretions (Bizzozero). The morphological elements are, however, not so numerous as one would imagine under these circumstances.

1. The largest of the elements held in suspension are certain irregularly spherical lumps having a diameter varying from one-fiftieth of an inch or less, up to twice that size. These consist of a transparent gelatinous substance, colorless or slightly yellow and of a consistence sufficiently firm to give distinct resistance in the application of the cover-glass, and which is felt quite sensibly, especially when some of the larger masses escape from under the edges. Under the microscope these masses at first appear striated, but on closer inspection this is found to be due to the



existence of numerous tube-like cavities which seem to be full of limpid fluid. To show these masses well, add a minute quantity of water to a little semen on a slide (a plain glass slip with a cement ring spun on it, is best) and examine instantly with a good  $\frac{4}{10}$ " or  $\frac{1}{2}$ " objective. The masses will be seen to become at first white and opaque, and shortly afterward to assume a granulated appearance. To see the granulations well, however, requires a much higher power ( $\frac{1}{3}$ " or  $\frac{1}{4}$ "). When the semen is allowed to stand for a few hours, these masses break down and at the expiration of from 12 to 24 hours, according to temperature, are no longer to be seen,—dissolved, apparently in the surrounding medium. These masses are supposed to have their origin in the seminal vesicles exclusively.

2. The first object which strikes the eye in looking at a specimen of semen under the microscope are the so-called spermatozooids which are morphological elements, produced, so far as we now know, by a peculiar transformation of certain cells in the interior of the seminal canalicula. These are the essential elements of semen. Of them may truthfully be said, to paraphrase the classical pun of Rabelais ("*sine testiculis esse papa non potest*"), *sine spermatozoa esse papa not potest*. They exist in innumerable quantities in normal semen, and under proper amplification (from 250 to 400 diameters) in their "living" or active state, resemble nothing so much as a vast shoal of minute tadpoles. They consist of a head, which when viewed from above or below is heart-shaped, and from the sides pyriform, and of a "tail" which is from 9 to 10 times the length of the head. The head and tail seem to be homogeneous in structure, though the latter is usually divided by histologists into an anterior

and posterior part, the latter of which gives to the spermatozoid its well known oscillating or vibratory motion.

Beside the gelatinous masses first spoken of, and the spermatozooids, semen contains the following elements, viz :

3. Round or oval cells, usually of the size of a white blood corpuscle, but sometimes attaining much larger dimensions. They are usually single nucleated, but occasionally they contain two nuclei. In pure semen the nuclei are somewhat indistinct, but the addition of water renders them very plain. These cells are frequently dotted over with globules, apparently of fat.

4. Minute granulations of an albuminoid nature. Usually in great numbers.

5. Prostatic concretions. These are not constant, but are usually found after repeated coitions (Zahn). They are yellowish in color, irregularly spherical, though sometimes oval or even pyramidal. Sometimes two or more of these masses are found adhering together.

They appear to consist of a gelatinous or hyalin matter arranged around a granular central nucleus.

6. Red blood corpuscles are sometimes, though rarely, found in semen otherwise normal. This occurs most frequently in the semen of old men (Bizzozero).

7. Epithelial cells of various descriptions from the different parts of the seminal viæ.

8. Granules of pigment of a yellowish hue. These are rarely seen in normal semen, except in old age.

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## DISEASES OF THE EYE AND EAR.

### Ear Instruments.

DR. RUSSELL MURDOCH (*N. Y. Medical Journal*):

*Snare*.—It will be observed in the accompanying woodcut that this snare

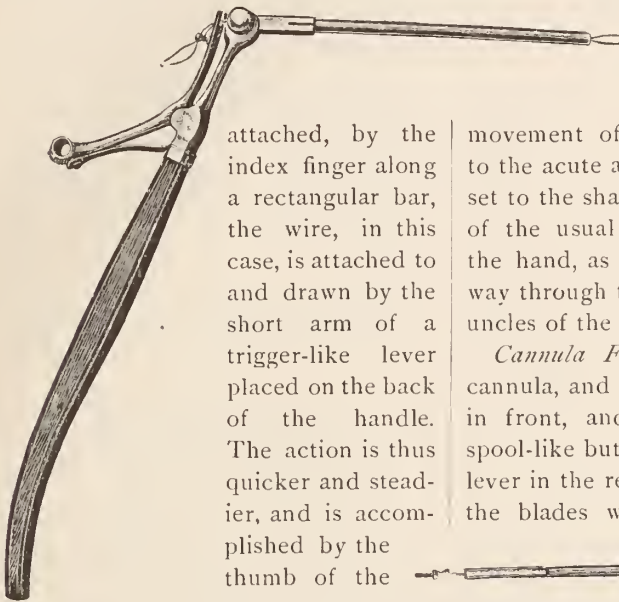
differs from others in the manner of pulling the wire through its cannula. Instead of sliding a sleeve, with the wire

locking the knife in the sleeve, this flexible end rises with the lever, while the stiff closely fitting rectangular shank passes directly backward.

The sleeve, however, is split in front, so as to allow a slight downward

movement of the blade. This, added to the acute angle at which the blade is set to the shank, does away with a part of the usual downward pressure from the hand, as the knife rapidly cuts its way through the exquisitely painful furuncles of the external auditory meatus.

*Cannula Forceps.*—This consists of a cannula, and a piston split into blades in front, and flexible, with a similar spool-like button for attachment to the lever in the rear. The lever operates the blades with the utmost precision,



attached, by the index finger along a rectangular bar, the wire, in this case, is attached to and drawn by the short arm of a trigger-like lever placed on the back of the handle. The action is thus quicker and steadier, and is accomplished by the thumb of the operator press-

ing on the long arm of the lever, with less exertion, and with a less complicated muscular movement.

*Furuncle Knife.*—This second instrument, like the cannula of the snare, is passed through the sleeve portion of the handle, and, unlike it, is not fixed by the set-screw, but is allowed to have free play through it. It is then, by means of a spool-like button attached to the forked extremity of the small end of the lever, in order to make which attachment the button has to be lifted



over the fork, and therefore to accomplish that purpose, the proximal end of the knife is made flexible by a closely wrapped spiral wire around a central thin flexible core. In order, also, that the backward motion of the lever may alone be imparted to the knife without its accompanying upward one and thus

and imparts to them, as long as the thumb presses on the milled extremity of the long arm of the lever, the most unyielding grasp.

*Porte-Acide.*—This likewise consists of a fixed cannula with a movable piston, also attached to the lever. The



anterior cup-shaped extremity is made to protrude by the thumb on the lever, and, when armed with the acid, is withdrawn, then, when it is thus guarded, the desired spot is reached in the meatus, and it is protruded, after which it is again shielded and withdrawn. The convenience of such a one-handed application is the chief claim that this instrument offers for presentation to the profession.

NOTE.—In need hardly be remarked that other instruments in use, such as a probe, tenotome, etc., can be inserted in the sleeve of this "universal" hand e

and fixed by the set-screw; or that the size and general shape of the above described instruments, as well as those of the handle, have been freely borrowed from instruments in general use.

#### An Operation for the Relief of Trichiasis.

JACOBSON (*Centrbl. f. prakt.*) describes still another operation for the cure of trichiasis. He first makes an intermarginal incision like that employed in the Jæschke-Arlt operation. He then excises a piece of skin (thin flap), usually from the temporal end of the intermarginal incision, either vertically upward or downward from the skin of the face, or in an obtuse angle from the skin of the temple, or from the skin of the lid. When the skin has been dissected free for about 4 minims from the point, a fine curved needle armed with a silk suture is introduced from the skin surface, and the point is then dissected free or divided. The flap is then carefully inserted in the intermarginal incision by means of the suture, and its point is stitched into the nasal angle. The same needle fastens the upper margin of the flap at three points toward the points of exit of the cilia, while a larger needle fastens the lower margin of the flap at three points toward the free margin of the cartilage, the wound in the skin is then closed and an iodoform dressing applied. Borated lint, gutta-percha paper, absorbent cotton saturated with boric acid solution, and a double bandage are applied over both eyes, and the bandage is not removed for three days. The dressings are then removed from the sound eye, but the operated eye is kept closed for six days longer.—*N. Y. Med. Journal.*

#### Eye Lotion.

THE following formula is frequently prescribed by Dr. L. WEBSTER FOX, as

an eye lotion in the ophthalmic clinique of the Germantown Hospital, Philadelphia :  $\mathcal{R}$ . Hydrarg. bichlorid., gr.  $\frac{1}{5}$  ; sodii chlorid., gr. x ; acidii boric., gr. xv ; sassafras medullæ mucil., 3 ij ; aq. camphor., aq. destil., āā f 3 ij. M. Sig.—Bathe eyes freely twice daily.

*Conjunctivitis* : In the acute and inflammatory stage I use :  $\mathcal{R}$ .—Hydrarg. oxidii flav., grs. ss. ; butyri petrolii, 3 j.—M. Sig.—Apply at inner corner of the eye.

*Conjunctivitis* (chronic) :  $\mathcal{R}$ .—Argentii nitratis, grs. v. ; aquæ, 3 ss.—M. Sig.—One drop in the eye twice a day.

#### Disease of the Roots of the Hairs in Blepharitis Ciliaris; the Causation and Mode of Cure.

ROEDER (*Kl. Mon. f.*) has been investigating the subject of disease of the hair-bulbs in various parts of the body, especially in blepharitis ciliaris, and finds that in the latter class of cases it is intimately connected with disease of the lachrymal passages. He has found that as long as there is no purulent secretion from the lachrymal sac, the cilia remain healthy, but that with the appearance of blennorrhœa of the sac, blepharitis also makes its appearance. So constant is this connection that the existence of stenosis of the lachrymal duct and blennorrhœa of the sac may be inferred from the presence of blepharitis ciliaris. If in simple stenosis of the duct the tears collect on and between the lashes, the fat excreted from the sebaceous glands of the hair-bulbs prevents the entrance of these tears into the hair follicles. But if pus cells are mingled with the tears, a fatty emulsion is formed which readily neutralizes the resistance of the fat of the sebaceous glands, and enters the hair follicles. The hairs swell up, and the inner hair follicle becomes filled with pus cells ;

the entrance into the follicle becomes closed. The pus within subsequently makes its way out by ulceration, and forms thick crusts between the lashes. The latter, together with the inner sheath, are cast off, and a young hair is developed. The suppuration causes cicatricial contraction of the entire follicle. The sebaceous glands become gradually obliterated as well as their channels of exit, and the hair bulbs become dry and hard. In view of all these facts, it is indispensable to a perfect cure that the disease of the lachrymal sac and duct should first be permanently cured.

#### DISEASES OF THE SKIN.

##### Treatment of Warts by Internal Administration of Arsenic.

MR. B. G. PULLIN, in a communication to the *Bristol Medico-Chirurgical Journal*, says that during the last two years many cases of warts on the hands of children have come under his notice for treatment. He reports three cases, which, if they are to be credited, certainly show remarkable efficacy on the part of arsenic. The first case was that of a young woman of 17, who had innumerable warts on her hands, which had grown with great rapidity. Some of the largest of these had attained their growth within a week or ten days; the whole skin of the hands seemed to be filled with small growths, some not visible, but easily distinguishable to the touch. Nitric acid was applied to about one-half dozen of the largest, and she was given three minims of liquor arsenicalis, and returned in a week without the vestige of a wart. In the second case, that a boy 8 years old, no local treatment was used, and all the warts but one had disappeared in two weeks, under two minims of the liquor arsenicalis. The remaining one was removed

with the finger. The third case is same as the second.—*Med. and Surg. Reporter.*

##### Milk Crust of the Scalp.

PROFESSOR HOLLAND brought two cases of milk crust of the scalp before the class, which he treated in the following manner. Remove the crusts with:  $\mathcal{R}$ . Olei morrhue,  $\mathfrak{z}$  iv; olei cadini,  $\mathfrak{z}$  j. M.

Then apply the following ointment:  $\mathcal{R}$ . Unguent. picis liquid.,  $\mathfrak{z}$  j; zinci oxidi,  $\mathfrak{z}$  ss; unguent. aquæ rosæ, q. s. ad  $\mathfrak{z}$  j. M. Sig.—Apply upon cloth to head.

The treatment was attended by a speedy cure.

##### Blistering Plaster and the Skin.

A THIN piece of gauze should be placed between a blistering plaster and the skin, to prevent particles of the plaster adhering to the exudation and undergoing decomposition.

##### Striæ et Maculæ Atrophicæ.

THIS condition of the skin is one which has long been known as atrophic lines and spots. The lesions consist of lines or spots which are smooth and glistening in appearance. The skin at their site is thin and apparently depressed, the whole presenting very much the appearance of a scar. In color there is some variation, from a whitish, pearly look, to a bluish hue. The lines vary from a twelfth to nearly a quarter of an inch in width, although not often more than one-eighth. In length the variation is still greater, being from three-quarters of an inch to several inches. These atrophic lines are generally irregular or broken, their contours not being well defined. Sometimes the general course of the lines is curved or serpentine. The direction is more or less oblique, and when a number of



lines exist they are somewhat parallel to each other. These streaks are by no means of rare occurrence.

The spots on the other hand, are roundish or oval in shape, varying in size from a millet seed to that of the thumb-nail, and present the same peculiarities of color and appearance as the streaks. These atrophic spots are generally isolated.

Atrophic lines and spots have been divided into two classes: idiopathic and symptomatic. In the idiopathic form we find that it is principally the thighs, the pelvis, the trochanters and the buttocks which constitute the seat of this affection. The chest, back and other portions are also sites, and a few cases have been observed in which the whole integument of the body was supplied with the atrophic lines. Some authors have described atrophic spots observed in the course of syphilis and of pneumonia, occupying the thorax in the latter disease.

In the idiopathic, as also in the symptomatic form, there is no inconvenience attending these lesions. There are no subjective symptoms whatever. In this form (idiopathic) the evolution of the lines and spots is very slow and may continue for years. Both sexes are liable to be affected at any time of life. The causes are not known, or at best, obscure.

Some authors state that the condition begins by the exhibition of erythematous spots or lines which have a violaceous or light red color. These seem to be due to enlarged capillaries. After this, atrophic changes begin to put in an appearance. On the whole, as Duhring observes, it would seem as though there is first a hypertrophy which is followed by an atrophy. The microscopic appearance shows that there exists an atrophy of the mucous layers of the skin.

Not only this but the papillæ of the corium are almost entirely obliterated. The connective and the elastic tissues are seen to occur as thin bundles. There are but few blood-vessels and these are smaller in calibre than the normal. The fat cells have all disappeared and the sebaceous glands, as a result of all these changes, become atrophied and undergo more or less degeneration.

The symptomatic variety of atrophic spots and lines is seen most often upon the abdomen and mammæ. It is due in general terms to an extreme distension of the cutaneous structures. We see it occur in pregnant women, in those having large abdominal and other tumors and in fat persons. The lines are often seen in the mammæ, being caused by the distension of the skin during lactation. These lines, especially in the case of pregnancy, are sometimes called *linæ albicantes*.

The connective tissue of the skin, as is well known, is arranged in rhomboid meshes, and when the skin is stretched these rhomboids stretch in their long axes. When the force is strong or violent the bundles become parallel to each other, and remain in this position. In this manner an atrophic line is formed, the depression between meshes forming the line. Beside this, the stretching exercises more or less pressure upon the tissues between the meshes and their nutrition is impaired to some extent, resulting in an atrophy of the mucous and papillary layers of that portion of the skin.

There is no treatment for this condition, as it is essentially incurable, but, as it occasions no inconvenience, this is of but little importance. Beside this, there is no necessity for treatment even for cosmetic purposes, as the lines and spots are not situated in visible parts.—*St. Louis Med. and Surg. Journal.*

## FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

### Congenital Club-Foot Cured by Excision of a Wedge-shaped Piece from the Tarsus.

DR. H. B. SANDS presented a patient together with plaster casts showing the condition before and after operation. The following history was given: Martha H., aged twelve, when first seen presented an exaggerated congenital deformity of the foot, which had never been treated. The condition was equino-varus with extreme supination, so that the child walked upon the dorsum and outer side of the foot, where a large bursa had developed that at first sight appeared to be the os calcis; the latter bone, however, was



Case of Martha H., before the operation. 1. The os calcis. 2. The bursa.

drawn inward and upward in a position of extreme supination. The case was of interest as compared with that of the second patient, who had been treated by a different method.

The operation was performed on November 5, 1887. An incision four inches in length was made on the outer edge of the dorsum, the bursa being first dissected out. A wedge-shaped piece of bone was then removed from the outer border of the tarsus, which included portions of the os calcis and cuboid, with the articulation between them. As this proved to be not enough

to overcome the deformity, the rest of the cuboid and the external cuneiform bone were next excised. The deformity still persisted, so that it was found necessary to remove portions of



Case of Martha H., after the operation.

the middle and internal cuneiform, with a large part of the scaphoid. The abnormal rotation was then mainly overcome, but it was still necessary to divide the tendo Achillis, which allowed the foot to be held in almost perfect position, slight plantar flexion, however, remaining. A plaster-of-Paris splint was at once applied. Four days after the operation there seemed to be undue constriction from the bandage, whereupon the dressings were changed; they were not disturbed after this until December 3d, when the wound had entirely healed with the exception of a superficial ulceration. As there was an excess of integument, the healing process did not proceed so rapidly as it would have done under other circumstances. By December 17th, the wound had entirely healed. On January 5th, the splints were removed. At the present time the pronation of the foot was perfect, but there was still a slight talipes equinus which was said to be a common defect after the operation. This might perhaps be overcome subsequently by the usual orthopædic treatment. The child had not been encouraged to walk very much as yet, since the bony union might yield to the

weight of the body, and the power of locomotion be thus impaired. There was a considerable amount of motion at the ankle joint.—*N. Y. Medical Journal.*

**Congenital Club-Foot Cured by Excision of the Astragalus, with Portions of the Os Calcis, Cuboid, and External Malleolus.**

THE case of Sadie S., aged six, was presented by Dr. SANDS in order to illustrate a method of treatment different from that adopted in the former case. One objection urged against excision of a wedge shaped piece from the tarsus was that it did not correct the deformity so well as when the entire astragalus was removed. Another objection was that the foot was thereby shortened and the arch destroyed or weakened. When the astragalus alone was removed the shortening of the leg tended to overcome the plantar flexion, so that it was sometimes found unnecessary to divide the tendo Achillis in order to correct this part of the deformity. The operation alluded to was praised also because it left the arch of the foot undisturbed. But in the present case it became necessary also to remove a wedge-shaped piece from the tarsus. An incision two inches and a half long was made on the outer part of the dorsum extending backward just below the external malleolus. The astragalus was first removed, but this had little effect on the deformity. The anterior extremity of the os calcis and a small portion of the cuboid were then excised, and, after removal of a portion of the external malleolus three-eighths of an inch in length and division of the tendo Achillis, a perfect position was obtained. A plaster-of-Paris splint was applied, the dressing being first changed at the end of four weeks, when the wound was found to have healed by the first intention. The splint was re-applied and removed in three weeks,

when the patient was discharged. Tenotomy had been performed for equinus of the opposite foot. When the child left the hospital the result seemed to be very good as regarded motion at the ankle, but the speaker could not say whether this would remain. He thought that there was a considerable difference of opinion regarding the comparative merits of orthopædic treatment and bloody operations in the management of club-foot, which was due to the fact that orthopædic surgeons usually dealt with cases at an early stage of the deformity. In the case of older children it was often necessary to operate because the bones themselves had undergone great changes in shape and posi-



Before the operation.

After the operation.

Case of Sadie S.

tion. There was some danger that surgeons might go to the opposite extreme in operating upon young children who would be benefited by the simple use of apparatus. But, in such cases as those presented, operative treatment alone would avail.

Dr. C. T. Poore said that he had examined the astragalus removed from the patient, and found that the head and neck inclined inward at an angle of  $55^\circ$ , the normal inclination in a child of that age being about  $10^\circ$  or  $15^\circ$ . There was also a depression of the head and neck downward of about  $55^\circ$ . There was, in addition, marked deformity of that portion of the bone which articulated with the tibia; the latter was probably a secondary deformity. He had recently

seen in a neighboring city a woman, thirty years of age, with marked congenital talipes equino-varus, who had been for some time under treatment by forcible twisting of the anterior portion of the foot; there had been some improvement in the position of the feet, but there was no motion between the individual bones, and the feet presented a wooden appearance, so that he doubted if a useful foot could be obtained. The speaker did not see how any operation short of removal of bone could be successful in such a case as the one under discussion. The deformity in Dr. Sands' case was due, first, to a change in the neck of the astragalus, and, secondly, to the curving in of the os calcis. It might have been possible to save the articulations of some of the small bones by excising a V-shaped piece from the os calcis, and then shortening the astragalus. The absence of motion seemed to be due to thickening of the posterior part of the capsule of the ankle joint. Dr. Parker advocated division of this ligament. The speaker had performed the operation described, of removing a V from behind Chopart's groove, five or six times with very good results. He had never seen such a marked deformity as that in the patient presented. With regard to the danger of having bandages too tight, he said that he had once lost a patient because there was too much constriction by the inner bandage.

—*N. Y. Medical Journal.*

#### Old Rupture of Gall-bladder; Adhesions of Liver to Colon and Pelvis.

In *Progress*, Dr. JOSEPH EASTMAN, of Indianapolis, reports the following:

Mrs. W., Chelsea, Ind., sent by Drs. Philipps, of Chelsea, and Sipe, of Orange, with this letter of diagnosis: 1. Ovarian, (a) solid tumor of ovary rare. (b) Would probably be more movable. 2.

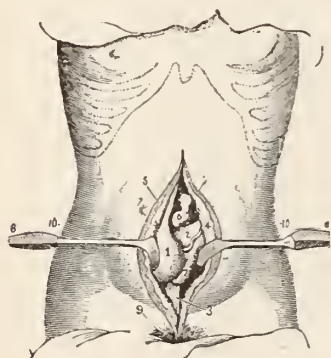
Omental tumor; (a) solid tumors of omentum are almost invariably malignant. 3. Kidney; size, shape, mobility, correspond to a displaced kidney, which I think it is. It might be cancer of the kidney, but I do not think there is pain enough for that, so it is excluded. Finally, as the diagnosis is not clear, I would advise waiting till fall—watching its growth and other symptoms. Meanwhile, give general tonics and cheer her up. REAMY.

Examination: Somewhat elongated abdominal tumor a little to right of median line of abdomen. Could be outlined fairly well by palpation. It was not kidney-shaped, nor scarcely movable. Tumor gave impression of much thickness. Kidney of right side definitely outlined in normal position through thin walls. Subjective: Fourteen years ago had "spells of bilious colic," since then has felt dragging pains in abdomen, causing her to assume a somewhat stooped position. Contraction and pain increasing till the condition seemed to demand surgical relief.

Operation October 18. My usual aseptic precautions. Incision exposed abdominal organs as shown in figure. A firm cicatricial band held the right lobe of the liver down in the right iliac fossa. This was severed, thus enabling me to raise the inner margin of the liver and find the ascending colon, adherent to inner border and under surface of liver. On separating gut from liver I found, "plastered" between them, three gall stones the size of marbles. Felt more through wall of bladder and incised the cyst, removing fifty-one more gall stones. Gall bladder shrunken and dry. I here present them in box; they vary in size from a grain of wheat to tip of thumb. Closed incision into gall bladder with silk, Lembert's sutures, to make the closure perfect, there being



no gall in bladder. I did not put in a drainage tube, as the gall had escaped in some way for years through ducts, or else had not been poured into the cyst. Having broken up extensive adhesions on surface of liver and bowels I put a glass drainage tube into the abdominal wound and closed the same around it. Nothing of note followed, except that the patient has made a good recovery and is at this date, December 15, seemingly cured. The liver can now be felt to the right and slightly above the umbilicus, its lower margin at least six inches higher than before the operation.



1—Right lobe of liver. 2-2 Bowel adherent to liver. 3—Cicatricial band dragging liver downward. 4-4 Peritoneum everted by retractors. 5-5—Thickness of abdominal parietes. 6—Bowel, also adherent to liver. 7—Umbilicus. 8-8.—Retractors. 9—Mons veneris. 10-10—Sup. crest ilium.

*Comment.*—From what information we have, this was a case of formation of gall stones fourteen years ago, with enlargement and rupture of gall bladder, causing local peritonitis, with resulting adhesions between liver and ascending colon. The alternate distension and relaxation of this bowel may have increased the extent of the adhesions downward and inward, until the inflammatory process firmly anchored the liver to the pelvis, by the formation of the dense band of tissue represented in the figure by 3.

In the *Transactions of the Indiana State Society*, 1879, Dr. Kemper, of

Muncie, reports a case in some respects similar, except in the important particular that Nature formed a biliary fistula, which cured the patient. In this same valuable contribution to the literature of the subject, Dr. Kemper collects a number of cases.

#### The Treatment of Compound Fractures

DR. FRANCIS J. SHEPHERD, surgeon to the Montreal General Hospital, writes in the *Canada Med. and Surg. Journal*:

Compound fractures being most common in the leg, I shall describe the treatment adapted to such a case. The method is as follows:

When called to treat a compound fracture of the leg, if there is severe hemorrhage and the wound is small, it would be better to enlarge it and search for the bleeding point. Having arrested all hemorrhage and placed the fragments in proper position, the wound should be thoroughly irrigated with a solution of 1-1500 of mercuric bichloride and then dusted freely with iodoform; over this some washed gauze wrung out of bichloride solution is placed over the wound, and over this a pad of finely carded sublimate jute, covered with bichloride gauze and dusted with iodoform. This pad is kept in place by an antiseptic gauze bandage, and the leg placed in a McIntyre or other splint. The pad, if there be much oozing, should be removed next day, and a new one applied, but the gauze over the wound had better not be disturbed. After this the dressing should not be changed unless the temperature and general condition of patient indicate that something has gone wrong in the wound. In my cases, as a rule, the second dressing has been left on a month, with result of finding, on its removal, the wound perfectly healed. If the wound is not of very large size, I have been in the habit

of immediately putting up the leg in plaster-of-Paris bandages, leaving a window opposite the wound, protecting it with an antiseptic towel whilst the plaster is being applied. The edges of the window I stuff with antiseptic jute to prevent the blood and serum getting under the plaster. After the plaster has been applied, the wound is dressed in the way I have described above. It is a very rare occurrence that the dressing has to be removed after the second day, when oozing generally ceases — *Weekly Medical Review*.

#### A New Method of Treating Pott's Fracture.

IN the condition known as Pott's fracture the displacement which occurs is twofold,—viz., (*a*) outwards and (*b*) backwards. The first of these deformities is universally recognized, but the second is often overlooked, because the ordinary method of putting up this fracture (in back and side splints) hides the displacement backwards whilst the apparatus is on, although it does but little to remedy it, so that when the patient begins to walk he finds that his progression is considerably impeded. An examination of the foot in such a case will show that the heel is much more prominent than it should be, that the concavity of the tendo Achillis is increased, and that the foot, if measured from the anterior margin of the lower end of the tibia to the end of the big toe, is found to be shortened.

The ordinary method of treating Pott's fracture by back and side splints is unsatisfactory, because (*a*) considerable difficulty is found in correcting the outward displacement of the foot, necessitating constant re-arrangement of the side splints, and (*b*) the backward displacement is not adequately affected unless so much backward pressure is made on the ankle as to incur the risk

of a sore heel. To get over these difficulties Cline placed the limb on an outside splint (known as Cline's splint) and flexed the knee so as to relax the calf muscles. This method answers very well as far as the outward displacement is concerned, but has hardly any effect on the backward one.

To remedy the latter, Dr. E. W. ROUGHTON, (*Lancet*) has adopted a modification of Cline's method. The splint used is an outside splint with a foot-piece padded thickest where the foot-piece joins the other portion of the splint. Three bandages are fastened by means of safety pins, one at the ankle passing from the instep of the splint below the ankle and turning round the heel; the second placed just above the ankle, and likewise being turned towards the heel; while the third is placed just below the knee, and turned in the opposite direction over the calf of the leg. The injured limb having the knee flexed is then laid upon the splint so that the outer edge of the foot is well supported by thick padding, and then fixed by the bandages, one being first applied above the other. The upper bandage passes backwards between the limb and the splint, then turns forward around the back of the limb and makes traction forwards, and it is then fixed by a pin, the other bandages being tightened at the same time. The middle bandage passes forward from the back of the splint between the splint and the limb, and then turns over the front of the leg and pulls backwards. The lower bandage is the most important one, and passes from before backwards between the splint and the limb, turns over the point of the heel and pulls forwards and downwards. The two lower bandages are wrapped once around the limb and splint and then fastened with safety pins. Usually, in

forty-eight hours the heel bandage will require to be tightened, owing to relaxation of muscular spasm. When bruising has subsided and a sufficient amount of union taken place, this apparatus is removed and the limb put up in a silicate bandage, taking care to keep the foot well adverted and at right angles to the leg. Dr. Roughton states that he has found this method of treating Pott's fracture very simple and efficient, the foot and ankle eventually being as useful and shapely as before the accident. The great advantage of the whole bandage is that it exerts a uniform and elastic pressure in the direction required, and never produces that unfortunate result—a sore heel.—*Therapeutic Gazette.*

#### Detection and Removal of Embedded Needles.

MR. H. LITTLEWOOD, of Leeds, has adopted the following plan with success:

1. The part supposed to contain the needle is thoroughly rubbed over with an electro-magnet, so as to magnetize the metal if present.

2. A delicately balanced magnetic needle is held over the part. If the needle is present, its position can be ascertained by the attraction or repulsion of the poles of the magnetic needle.

3. Having ascertained the presence of the needle (for example, in the hand), the part is rendered bloodless, and a grain or more of cocaine injected hypodermically.

4. An incision is made over the ascertained portion of the needle.

5. The electro-magnet is then inserted into the wound, and with it the needle is felt for. Sometimes it will be found and removed quite easily, at others great difficulty will be experienced, taking as long as one-half or three-quarters of an hour. This may be due to the

fact that its position has not been accurately ascertained; it may be lying across the incision, or it may be so firmly embedded in the tissues that the electro-magnet is not able to withdraw it. If this occurs the incision must be enlarged, and the edges held apart with some non-magnetic retractors; using the electro-magnet as a guide, the needle may be seen and removed with forceps. If the needle is firmly fixed, the following plan has been adopted: by placing the positive pole of a galvanic battery on the surface of the body, and the negative pole in direct contact with the needle, this becomes loosened by electrolysis, and then can be easily removed by the electro-magnet. This latter method has been found useful in two cases for the removal of sewing-machine needles that had transfixed the end of the finger, and were so firmly fixed as not to be removable by forceps. The electrolytic action loosened the needles so that they could be removed quite easily.

I have now removed six needles from the hand and a piece of steel embedded in the foot. In none of the cases could I feel the piece of metal or be sure of its presence without the aid of the method above described. As it requires some expensive apparatus, and sometimes takes a long time, I am afraid this method will not become general; but it is well worth the time and trouble spent if in the end one is successful, as patients really suffer a good deal of pain and anxiety if these foreign bodies are allowed to remain embedded in the tissues.—*Lancet.*—*American Practitioner.*

#### Plaster-of-Paris Bandages.

THE great secret of applying plaster-of-Paris bandages is to have all the sizing out of the material used, so when a piece of muslin to be used is thrown upon water it sinks readily; if it does

this it will readily absorb water and plaster and will set quickly. A little salt added to the water is an advantage; a roller made of lint is better than cotton to be applied next to the part.

#### Ichthyol in Surgery.

DR. E. MARTIN, in a paper read before the Philadelphia County Medical Society, and published in *Medical and Surgical Reporter*, said in conclusion :

The writer has used ichthyol in :

1. Six cases of cervical adenitis, with absolutely no relief; cure being subsequently brought about by iodine or the knife.
2. Fifteen cases of marked inflammatory induration of the subcutaneous tissues, with invariably a speedy and in some cases almost magical reduction, and this after other means had been tried unsuccessfully.
3. In two cases of furuncles without good effect. In one case of cellulitis without marked effect till the knife was used. (In this case staphylococci were found, but no chains.)
5. In four cases where pain was the most marked feature of inflammation, with complete relief in three and no effect in the fourth.
6. In one case of erysipelas of the scalp, with immediate cure. The latter is so striking that it is reported in full :

B. C., bartender, aged 36, a full blooded Irishman, was struck on the head by a bottle whilst intoxicated, December 20, 1887. Two slight wounds of the scalp were inflicted, to which no dressing was applied. On December 22, the symptoms were chill, fever, nausea, great pain in the head and swelling. He then went to a clinic; wounds were opened, disinfected, and catgut drainage provided; symptoms progressive. He was seen by the writer on the second day of his fever, the fourth from the infliction of the wound. He had had no sleep for two nights; the pulse

was 106; temperature 103°; violent headache; whole scalp puffy, œdematous, and very tender; a few drops of thin pus was squeezed from the wounds. Cover-glass preparations of blood from puncture by tenotome showed Fehleisen's chains. A saline purge and iron were ordered internally. On the scalp was placed a thick layer of ammonium ichthyolate and vaseline, equal parts. The pain was relieved almost immediately; the patient slept comfortably; his temperature the following morning was 98°, and he was and remained well.

This is not different from the results obtained by Nussbaum. With the exception of the case of erysipelas, the writer used a ten per cent. ointment of ammonium ichthyolate in lanolin, fearing lest, in the case of stronger applications, his effects might be ascribed to counter-irritation. It is possible that stronger preparations would have proven efficacious in the treatment of cases of adenitis, in which the weak ointment signally failed. The extravagant praises bestowed by some authors on ichthyol savor more of proprietary advertisements than scientific contributions, and the variety of affections for which it is recommended might well make one doubtful as to its complete efficacy in any single instance.

An analysis of the cases in which it has proven serviceable will show, however, that they can be relegated to one of two classes: 1. Affections characterized by inflammatory enlargement; 2. Affections characterized by pain of peripheral origin, probably depending on inflammation or congestion.

For either of these conditions, theoretically, a powerful antiphlogistic would be indicated, so that the clinical indications for the use of the drug correspond to its alleged therapeutic effect. When the surface is irritated, weak



solutions (three to five per cent.) should be used; but when the skin is intact and the subcutaneous tissues are to be affected, pure or one-half strength ointments give the best results. In using strong preparations the skin should be washed with soap and warm water, and thoroughly dried before each application. Ichthyolates can be combined with any of the ointments, or can be dissolved in water.

The writer's success with the drug, even where it was not used in the most efficient manner, has convinced him that the praise bestowed on it by the Germans is well merited. Where suppuration has actually taken place the weak ointment is not of service, but in the allaying of inflammatory pain and the resolution of subcutaneous induration (excepting adenitis) it is satisfactory.

#### Solutions of Corrosive Sublimate.

A NEAT and convenient way to handle corrosive sublimate for making antiseptic solutions is to dissolve 15 grs. in f 3 j of alcohol, which, added to a quart of water makes 1-1000 and undergoes no chemical change if used immediately.

#### Causes of Subcutaneous Inflammation and Suppuration.

GRAWITZ and DE BARY report some very interesting experiments showing that the introduction of pus bacteria into the subcutaneous tissues is not in itself sufficient to cause suppuration, but that other factors must be present to furnish a suitable condition for their growth and multiplication. Throughout their experiments they carefully cleansed and disinfected the integument at the proposed site of injection, employed a thoroughly clean needle of small caliber, and immediately closed the wound made by the needle with iodoform colloid. It was found that with these

precautions large quantities of neutral fluid were absorbed after subcutaneous injection, both were sterilized and when infected with the *Staphylococcus pyogenes aureus* or *citreus* to a greater extent than the most careless experimenter would ever accidentally infect sterilized fluids. They therefore consider the wound made by the needle to be the point of danger, as here the bacteria are held, multiply, and spread through the tissues, while those in the meshes of the subcutaneous tissue are absorbed before they can do any damage. In this manner they explain the observation of Uskoff that suppuration was produced by the injection of large quantities of neutral fluids, and negative the assertion of Orthmann that the suppuration so produced was due to the admixture of bacteria. In some cases the integument over the injected fluid died, and in these cases suppuration supervened. Histologically, the connective tissue cells at the site of the injection were found swollen and nuclear. When the solution had been colored with methyl blue, the coloring could be plainly seen in the sheaths of the neighboring nerves, demonstrating that narcotic substances so injected probably exercise a local effect. Subcutaneous injections of certain germicidal irritant fluids—such as a solution of bichloride of mercury (1 to 1,000), absolute alcohol, and tincture of iodine—were followed by severe inflammation, but no suppuration unless the integument become necrotic. After successive injections of solutions of chloride of zinc, varying from one to five per cent., into the same portion of a muscle of a rabbit, a fluid impregnated with *Staphylococcus pyogenes aureus* was injected into the same place. The muscle was found disintegrated, but there was no pus. After the injection of a few cubic centimeters of a five per

cent. solution of nitrate of silver into a dog, an abscess was formed containing pus, from which no bacteria could be obtained. Of solutions not germicidal, but able to arrest the development of bacteria, acids and alkalies produced no suppuration, even after the addition of bacteria, though five per cent. solutions of the caustic alkalies reduced the tissues to a soft hemorrhagic mass. Injections of 1-to-4 solutions of ammonia caused the formation of pus, cultivations of which in agar-agar remained sterile. When bacteria were injected with it, flourishing colonies of the same form of bacteria as those injected could be cultivated from the pus. Hence they conclude that ammonia, in sufficient concentration to cause severe inflammation and suppuration, furnishes in the subcutaneous tissues a suitable material for the growth of bacteria. Oil of turpentine they determine to be a germicide of the first rank. Instruments immersed in it for two minutes are, they maintain, absolutely aseptic, and are not injured as by solutions of bichloride of mercury and carbolic acid. Injections of this oil failed to produce suppuration in rabbits and guinea-pigs, but in dogs abscesses were formed which contained a peculiar pus with no bacteria. Small amounts of croton-oil produced fibrinous exudations, but no pus; larger quantities caused poisoning. —*New York Medical Journal.*

#### Treatment of Inflammations in the Region of the Ileo-Cæcal Valve.

DR. M. H. RICHARDSON, surgeon to the Massachusetts General Hospital, in a paper read before the Suffolk District Medical Society, sums up his conclusions as to the proper treatment for these cases in the following propositions:

1. In mild cases of inflammation in

the region of the appendix there should be no surgical interference till physical examination reveals the presence of an abscess, which should be incised by the post-peritoneal method.

2. In violent cases, where it is evident that there is a general peritonitis, laparotomy should be done immediately, just as soon as a diagnosis of general peritonitis has been made.

3. In violent cases, where it is doubtful whether the general peritoneal cavity has yet been invaded, and where the history and the physical examination favor the presence of an abscess in the ileo-cæcal region, though it is impossible to locate the exact seat of the inflammatory process, an exploratory incision should first be made in the right iliac fossa, and the ileo-cæcal region explored post-peritoneally.

4. The best incision to reach the appendix in the average case, is along the outer border of the rectus, about four and a half inches from the spine of the pubes.

5. The best incision for extra-peritoneal exploration is parallel and close to Poupart's ligament, beginning in about the centre, and extending outwards and backwards a sufficient distance. At the same meeting Dr. J. W. Elliot reported a case of perforation of the vermiform appendix, causing an intra-peritoneal abscess and general adhesive peritonitis, and the following propositions were formulated for discussion.

1. For cases of chronic or subacute perityphlitis with a small tumor, or without tumor, expectant treatment.

2. For cases of chronic or subacute perityphlitis with a large and increasing tumor, extra-peritoneal incision.

3. For cases of acute perityphlitis with threatening symptoms and with tumor, extra-peritoneal incision.

4. For cases of rapidly acute perityphlitis with alarming symptoms, and without appreciable tumor, exploratory incision (extra or intra-peritoneal).—*Boston Med. and Surg. Journal.*

#### Increasing the Antiseptic Powers of Iodoform.

G. DE RUYTER states that solutions of iodoform in ether and alcohol have greater antiseptic properties than the powdered drug, owing to the production of free iodine. The following solution was found an excellent antiseptic, and much superior to the ethereal one: Iodoform, one part; ether two parts; alcohol eight parts.

The author confesses that outside of the body iodoform has little power over the greater number of disease germs. It has, however, been shown that when in contact with the fluids of the body the iodoform is decomposed and is then capable of acting on bacteria.—*International Jour. Surg. and Antiseptics.*

#### Ligature and Excision of the Sac in Hernia.

DR. POLAND, in the *Practitioner*, sums up the advantages of ligation and excision as:

*Immediate.*—1. In many cases it does not add in any way to the risk of operation. 2. It shuts off the peritoneal cavity in a few hours. 3. It prevents hemorrhage into abdomen. 4. It prevents septic peritonitis.

*More remote.*—5. It promotes tendency to radical cure. 6. It leads to more perfect adjustment of truss and comfort of patient.—*Jour. American Medical Association.*

#### Treatment of Malignant Tumors of the Breast.

In the *Glasgow Medical Journal*, Mr. JOHN FAGAN, surgeon to the Royal Hospital and Belfast Children's Hospital, publishes a paper upon the treat-

ment of tumors of the breast. The following is a summary of his views regarding the treatment of malignant tumors:

1. That in many of the very worst forms of advanced painful, ulcerating scirrhus, where there is no immediate danger of death from marasmus or visceral complications, the breast may be removed with great benefit and relief to the patient.

2. That all cases of malignant growths of the breast, as soon as they are diagnosed, should be removed at once by operation and in the thorough manner I have described.

3. That all doubtful cases should be dealt with in the same way.

4. That all recurrent growths should be removed at their earliest manifestation.

5. That all non-malignant neoplasms, as soon as they show a tendency to enlarge, and especially between the ages of twenty-five and forty years, should be removed without delay.

The following quotations from the writings of Jonathan Hutchinson bears forcibly on this point: Too late! too late! is the sentence written, but too legibly on three-fourths of the cases of external cancer concerning which the operating surgeon is consulted. It is a most lamentable pity that it should be so; and the bitterest reflection of all is, that usually a considerable part of the precious time which has been wasted has been passed under professional observation and illusory treatment.

When the doctrine of the precancerous stage shall be widely adopted, and when surgeons generally shall recognize the propriety—let me say the duty—of operation for purposes of prevention, then, and I believe not till then, shall we witness a considerable reduction in the mortality of cancer.—*Medical and Surgical Reporter.*

#### Treatment of Ingrowing Toe-Nail.

PATIN recommends (*Gazette des Hôpitaux*) for this affection that the nail be thoroughly bathed with water, then dried, and painted with traumaticin (10 parts of gutta serena to 80 parts of chloroform). Sometimes it is best to dress the toe with diachylon ointment after painting it. Of course as complete rest as possible is to be given to the toe.

#### Oil of Sassafras as Iodoform Deodorant.

ACCORDING to C. E. Dodsley (*British and Colonial Druggist*), oil of sassafras is the best deodorant for iodoform, 4 drops sufficing for an ounce of the iodoform.—*Medical Journal*.

#### The Telephonic Bullet-Probe.

AT the meeting of the Surgical Section of the New York Academy of Medicine on January 9, Dr. J. H. GIRDNER read a paper on this subject. In the past year he has perfected the instrument that he described a year ago, and now operates it by a current of electricity extracted from the body of the patient himself. This instrument, as now arranged, leaves both hands of the operator free, and shuts out all sound except that heard when the bullet is touched. Dr. Girdner reports the following case:

A musket-ball had lain between the tibia and fibula for twenty-two years. A long, narrow tortuous sinus had been discharging for a year. When an ordinary probe was passed, hard substances could be felt in many places; but you could not tell if bone or bullet was being probed. The porcelain probe could not have been marked by the lead owing to thick crusts of salts of lead, with which the ball was covered, even if it could have been brought into contact with the bullet, which it could not, owing to narrow places in the sinus. Bone and other tissue were felt as the probe passed to

different parts of the wound, but no response was heard in the telephone until the leaden bullet was touched, then an electric current passed through the telephone; and as often as this current was made and broken, by touching and removing the probe from the lead, so often was there a vibration of the diaphragm, and consequently a clicking and scraping sound heard in the telephone; in other words, the patient's body was converted into an electric battery; the body corresponded to the cups, its fluids and heat to the battery fluid, the steel bulb immersed in the mouth to the zinc, let us say, and the lead when it was touched, to the carbon, and thus our battery was completed, a current obtained, and the metal diaphragm made to vibrate.

The advantages of this instrument over all others at once appear, when it is remembered, that in its use the accurate sense of hearing is substituted for that of the sensation communicated to the hand, which is always unreliable, for no one can tell if a hard substance felt in a wound be bone, metal or some other hard tissue. The porcelain-tipped probe was made with the hope of overcoming this difficulty; but after ample experience with the Nélaton probe, both in my own hands and in those of others in my presence, I am certain that, unless the bullet is perfectly clean from grease, lead salts, etc., and very favorably situated, it is not possible to obtain lead markings on the porcelain tip which can be relied upon to direct our operative procedure. Let any one hold a bullet in the hand, and probe it with a Nélaton probe until the markings of the lead on the porcelain point are perfectly distinct, and he will find that it requires an amount of force and pressure in rubbing the lead which he will rarely be able to make, even in the most favorable cases of gunshot-wound. None of the above



conditions, which make the Nélaton useless, in any way interfere with the perfect working of this new probe, for the slightest touch of the bullet with the probe causes a loud and unmistakable sound in the telephone. Another great advantage is, that a sharp, slender, steel needle may take the place of the blunt probe, and then no tract is necessary in probing; the needle, rendered aseptic, may be thrust into the tissues like a hypodermic needle, with little pain, and no danger to the patient, as has been verified in actual practice, and when the bullet is struck, you have only to loosen the clamp-screw and remove the handle, allowing the needle to remain fast in the tissues, with its point still in contact with the missile, and it serves as a perfect guide in cutting down on the bullet.—*Medical Record*.

### VENEREAL DISEASES.

#### Operative Surgery of the Male Bladder.

AT a meeting of the Edinburgh Medico-Chirurgical Society, Professor ANNANDALE read a paper entitled, "Clinical Remarks upon the Operative Surgery of the Male Bladder," his object being to express his opinion briefly and from experience as to recent operations on the male bladder. He had performed the supra-pubic operation recommended by Sir Henry Thompson, as well as perineal section according to Mr. Reginald Harrison's method, and had come to the conclusion that the latter was the better, because the bladder was more easily drained, and the incision through the prostate did good. He advocates the operation of perineal cystotomy in the following cases: 1. In cases of constant desire to pass water, accompanied by great pain and enlarged prostate, when the ordinary treatment of catheterization and

washing out has failed. 2. In acute retention from enlarged prostate. 3. For removal of tumors from the bladder. In such cases it is better to perform both operations, as greater accuracy in removing the tumor is obtained. 4. For persistent irritability of the bladder. For a fortnight after the operation he introduced a lithotomy tube, which was then changed for a short No. 14 catheter made of soft rubber, to which a tube fitted with a tap could be applied, and this enabled patients to go about their ordinary work after a time. In answer to Dr. Hodsdon, he said the tube had to be taken out and cleaned at intervals, and that there was no leakage along the sides of the catheter. Replying to Dr. Cotterill, he said that in every case he tried to incise the prostatic urethra and then the prostate upwards. The incision into the prostate, which Mr. Harrison makes on both sides, appears to have a beneficial effect in cases of enlarged prostate.—*Medical Press and Circular*.

#### Gonorrhœa.

DR. HORWITZ, chief assistant to the surgical department of Jefferson Hospital, frequently uses the following as a favorite prescription for injection in gonorrhœa:  $\mathcal{R}$ . Plumbi acetatis, 3 ss; zinci sulphat., gr. xvj; extract. kramerie fluid, f 3 ij; tinc. opii. f 5 ss; aquæ, q. s. ad, f 5 vj. M. Sig.—Give as injection.

#### Should We Treat Syphilis During the Primary Stages.

DR. EDWARD B. BRONSON read a paper before the New York Academy of Medicine, bearing the above title. He explained that by the term preventive treatment was not necessarily meant abortive treatment, but all measures, which in any degree abridged the course of the disease and ameliorated its effects upon the constitution. He showed that

inasmuch as we do not know the essential nature of syphilis, and we have no radical treatment, we must, in looking for new and more effective means of combating it, be guided to some extent by theoretical considerations. He asked the question, if the indications thus far afforded by our imperfect knowledge of syphilis were such as to render any form of preventive treatment in the primary stage unavailing and absolutely hopeless; for such was the view entertained by many physicians. There were two ways of approaching this question, the one theoretical and the other empirical,

No theory explained syphilis so satisfactorily as that which attributed it to the presence and growth in the tissues of a specific micro-organism. But if this theory could be established, it would by no means make certain that preventive methods would prove successful.

Dr. Bronson thought theory and facts pointed to a temporary sojourn of the syphilitic virus in the region where it was first implanted, and during that period the disease was local, not constitutional. From here it sooner or later contaminated the neighboring lymphatic glands, and then passed to the general system. The author cited some objections which had been raised to this view, which he thought were without foundation, and then proceeded to show the inefficacy of proposed methods of treatment during the primary stage of the affection. The principal measures proposed had been excision and cauterization of the initial lesion. Briefly reviewing the history of these measures, he came to the conclusion, as many other distinguished syphilographers had done, that they had not been successful, and that in the nature of things they could not be. The basis for this opinion was the fact that the disease had become general, or af-

fecting glands which would escape the surgeon's knife or cautery, before the development of the initial lesion, or the time at which the treatment could be instituted.

He then spoke of the objections which had been offered against general medication during the primary stage. The chief one had been that it was indirect, for, as long as the affection remained local, it was extremely doubtful whether medicine taken internally would reach and destroy the localized virus. The author reasoned that the remedy so much relied upon in the general treatment of syphilis would be more likely to prove a germicide to the syphilitic micro-organism if applied locally during the primary stage, than if it were to act by passing through the general system. This view was based on theoretical grounds, and on such grounds he commended it to the consideration of those who had occasion to treat this disease.

The method of employing the drug (mercury) was both by inunctions and by hypodermic injections into the glands in the neighborhood of the initial sore. The injections consisted of not more than one one-hundredth of a grain. He preferred mercurial soap to mercurial ointment for rubbing into the skin. It might be said that this regional treatment was also constitutional treatment, as in a degree it was, but it was something more. Better this, the author thought, than to let the case go on without lending the patient any possible hope. While the treatment was recommended on theoretical grounds, yet he had employed it in certain cases, although the diagnosis and method of applying the treatment were so uncertain as not to justify any conclusions.

Dr. E. L. Keyes said he would have been much interested to hear the results of experiments with this form of treat-

ment. In general he was opposed to constitutional treatment during the primary stage of syphilis for the reason that it rendered its after progress irregular. Excision and cauterization had, he believed, failed in every instance to cut short the disease, and he doubted whether this local treatment with mercury would prove more effectual. The virus had entered the general system before it could be reached by local measures.

Dr. R. W. Taylor held the same views as Dr. Keyes, that general treatment during the primary stage of syphilis was objectionable, as it rendered the future progress of syphilis irregular; the diagnosis remained uncertain until the secondary lesions presented, and if by constitutional treatment during the primary stage such secondary lesions were averted, the patient would not feel convinced that he had syphilis, and would prove intractable; yet the tertiary symptoms were as likely to develop in all their severity as if the disease had taken its usual course, producing the eruption, etc., of the secondary stage. He believed that syphilis was at first a local affection, but he doubted the efficacy of such proposed local treatment. Certainly excision and cauterization had, in his opinion, failed to abort a single case. Then he thought injections of mercurial solution in the glands on the thigh would, if the solution were of sufficient strength to be efficacious as a germicide, produce ulcers. Such had been his experience.

The President compared syphilis with infectious diseases regarding which more was known, particularly diphtheria, and thought a lesson might be learned therefrom. In diphtheria the poison might be local, and it might enter the general system and cause a constitutional disease; it usually entered by way of the

lymphatics, but it sometimes found its way to the general circulation directly through the blood vessels in the neighborhood of the local disease.—*Medical and Surgical Reporter.*

## DISEASES OF THE EYE AND EAR. 2

### The Shallow Anterior Chamber of Primary Glaucoma.

PRIESTLEY SMITH (*Ophth. Rev.*) considers that a shallow anterior chamber, though not always present in primary glaucoma, is a well marked characteristic of that disease, and especially of its more acute congestive forms; an advance of the lens and iris toward the cornea usually accompanies the onset of the high tension. Still, he is unable to assert that the disease is actually induced by an obstruction in the circumlental space, impeding the normal flow of fluid from the vitreous to the aqueous chamber. An advance of the lens is the natural consequence of an increase in the quantity of blood in the interior of the eye. When the quantity of blood contained in the internal vessels of the eye is augmented, either by a quicker afflux or a slower efflux, compensation must be made, either by the expulsion of some other fluid from the eye or by over-distension of the sclera. There can be no doubt that, when the amount of blood in a healthy eye is increased, the escape of the aqueous is quickened so that a compensatory reduction is effected in the fullness of the aqueous chamber, the partial emptying of the chamber being accompanied by an advance of the lens. This advance seems to be inevitable when we consider that the turgescence of the uveal tract tells mainly upon the contents of the vitreous chamber. Under ordinary circumstances such variations in the depth of the anterior

chamber are doubtless very small. Congestion of the head does produce some alteration of vision. The compensatory changes are usually slight, transient, and devoid of danger. But under certain predisposing conditions an advance of the lens may involve an attack of glaucoma. Certain experiments have shown that, when the lens is driven forward by a slight excess of pressure in the vitreous chamber, the ciliary processes are pressed forward against the base of the iris and the angle of the anterior chamber is closed so firmly as to arrest the escape of the aqueous fluid. The advance of the lens locks the outlet. This locking of the outlet after a certain quantity of the aqueous has been driven out is a preservative mechanism, for in the absence of such a check external pressure would squeeze out the whole of the aqueous, and endanger the internal structures. This is a physiological process; it is not glaucoma. It leads to glaucoma only in a small minority of cases, in which the outlet of the eye is predisposed to compression and occlusion. The usual predisposing cause is an insufficient circumferential space. In the youthful eye the lens is comparatively small, the anterior chamber deep, and the space at the disposal of the processes sufficient for their free expansion without undue displacement of the iris. As life advances the conditions alter; the lens enlarges and encroaches on the space in which it lies; the anterior chamber grows shallower; the ciliary processes are brought into closer relations with the adjacent structures. A congestion of the eye which would be harmless in early life may in advanced life easily induce acute glaucoma. The vessels of the uveal tract become overfilled; the ciliary processes swell up; a part of the aqueous is expelled, and the lens ad-

vances; the angle of the anterior chamber is compressed. From this moment the intra-ocular pressure rises rapidly, and the obstruction at the outlet intensifies itself. The increased pressure within the eye embarrasses the escape of venous blood still further, and aggravates the swelling of the processes; the engorgement increases, the lens is driven forward still more forcibly, until not an atom more of the aqueous can be forced through the closed outlet; a shallow but firmly locked anterior chamber remains. The internal circulation of the eye is strangulated because the normal process of compensation by the aqueous is arrested. The external vessels dilate, and serum escapes in the direction of least resistance. This is acute glaucoma. The high tension depends more upon excess of blood in the eye than upon an excess of the intra-ocular fluid. The author considers that *glaucoma fulminans* is the expression of a maximum obstruction of the circulation; *glaucoma simplex*, of a minimum; the conditions of the eye which predispose to the disease being similar in the two cases. In the former there is strangulation sudden and complete, compensatory adaptation of the blood vessels is impossible; an acute œdema limited by pressure ensues, and reveals itself by the extreme impairment of vision met with in such cases, by the cloudiness of the media, and by the chemosis of the conjunctiva. In the latter variety, on the other hand, the vascular disturbance is gradual and slight; the vessels adapt themselves to the slowly increasing pressure; the angle of the anterior chamber is more or less compressed, but not closed. A too extensive study of histological changes has diverted attention from the physical principles involved in the problem. It is remarkable that dissertations on glaucoma are still published in which little



or no value is attached to Leber's all important discovery, the escape of the aqueous at the angle of the anterior chamber, or to the common characteristic of glaucoma, the obstruction of this outlet.—*N. Y. Medical Journal.*

### DISEASES OF THE SKIN.

#### For Chapped Hands.

THE *American Druggist* recommends the following formula : White wax,  $\bar{3}$  xiv., spermaceti,  $\bar{3}$  iij., cocoa butter,  $\bar{3}$  ix., castor oil,  $\bar{3}$  ix., oil of benne,  $\bar{3}$  vi. Melt and mix; then add glycerine,  $\bar{3}$  ij. Perfume as desired.

This makes quite a nice preparation. Petrolatum is used instead of the oil of benne (sesame oil) by some, and is considered an improvement.

#### Hyperidrosis.

IN an article on hyperidrosis, or excessive sweating, published in the *Journal of Cutaneous and Genito-Urinary Diseases*, Dr. C. W. CUTLER gives the following as the causes of the disease and the course to be pursued in its treatment : 1. The cause is usually a nervous one. 2. The secretion of the sweat glands seems to be controlled by the sympathetic ganglions or system of nerves. The hyperidrosis is a functional affection of the sympathetic system. 4. The sweating of the extremities is usually symmetrical owing to the close relationship and anastomosis of the sympathetic ganglions of the trunk ; and asymmetrical on the head and neck for want of this relationship. 5. There is but slight structural change in the affected sweat glands, and such as exists is accounted for by the hypersecretion ; the disease is probably functional and not organic. 6. The difference in appearance of the affected skin on the extremities and trunk is due

to the distance from the centre of circulation, as the physiological conditions are the same. 7. Painful and tender feet, not rheumatic, are usually the result of hyperidrosis. 8. Bromidrosis is usually the result of uncleanness—not removing the secretion promptly. 9. Nerve tonics are usually indicated in the treatment of hyperidrosis. 10. Local treatment is always indicated, and although it may not effect a cure, it nearly always relieves the symptoms.—*Medical and Surgical Reporter.*

#### Acne Rosacea.

DR. ERNEST BESNIER, in one of his late clinical lectures at the Hôpital St. Louis, stated that the afferent and efferent vessels of the face, passing through foramina in the bones, have their circulation easily affected when they increase in size. Moreover, the sympathetic nervous system exercises a marked influence upon this circulation. The disease is one whose underlying causes are most often uterine or gastric. On this account attention must be particularly directed to these organs, and most often it will be necessary to look after the stomach. For the treatment of the local condition counter-irritation may be indulged in as an adjunct to the local measures employed. Hot foot baths, lasting an hour, and aloes determine a flow of blood downwards. For the purely local treatment M. Besnier advises irritants. When the amount of surface is quite limited a fly blister carefully applied, is of benefit. When diffuse, an irritant ointment should be applied and followed by starch cataplasms. I have found, occasionally, that very good results will follow the application of mercurial plaster. When this has produced sufficient irritation it should be followed by oxide of zinc plaster.—*St. Louis Med. and Surg. Journal.*

## FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

### Tracheotomy Respirator.

DR. THOS. F. RUMBOLD (*Medical Journal*):

On February 21, 1870, with the assistance of Dr. Wm. Neihaus, of this city, I performed tracheotomy on Mr. Wm. D., æt. 43 years. Immediately after he was placed in bed I had a large sponge, that was squeezed out of quite warm water, laid over the tracheal tube. This warmed and moist-



Figure 1. Illustrating the application of an apparatus for conducting the warm and moist air from the mouth and nasal passages to the lungs in cases of tracheotomy, *a*, tracheal tube in place; *b*, short rubber tube connecting the tracheal tube with the secretion trap; *c*, secretion trap, to catch the muco-purulent secretion that is coughed from the lungs, and the condensed vapor from the mouth; *d*, soft rubber tube connecting the mouth with the trap and tracheal tube. In the trap *c* is a small bag of pulverized charcoal to deodorize the secretions.

ened the air as it entered the lungs, thus preventing the necessity of having the air in the room unduly heated and moistened, which is usually found beneficial in tracheotomy cases. While he was in the house he had the hot moist sponge on his neck all the time. In eight days he was strong enough to

drive to his place of business, but was prevented by his inability to keep the sponge warm. As soon as he went outdoors and the sponge became cold the cold air produced an excessive cough and some pain in his lungs.

For the purpose of allowing him to have warm moist air all the time, and also to allow him to blow his nose—which gave him a great deal of trouble and much discomfort, because of the presence of profuse nasal secretion—I connected the tracheal tube with a rubber tube, which he placed in his mouth. In this way the air from his lungs passed through his mouth, up behind the soft palate and out his nose. This enabled him to blow his nose as perfectly as he had ever done. During inspiration the air passed through his nostrils, mouth and rubber tube into his lungs through the tracheal tube, thus giving it nearly the normal degree of warmth and moisture.

It was found after a short trial that the muco-purulent secretions from the lungs, and the condensation of the moist air from the mouth and nose, as well as some saliva from the mouth, accumulated in the rubber tube, which when they passed into the trachea caused intense spasmodic coughing. For a few days he partially prevented this by clearing the rubber tube after taking it out of his mouth, by coughing through it rather forcibly. As it was quite difficult to cleanse the rubber tube of the muco-purulent secretion in this way I had a glass receptacle attached to the tracheal tube and the tube going to his mouth, so that the secretions were prevented from entering the tracheal tube.

I have called the apparatus a Tracheotomy Respirator. I have applied the same kind of an apparatus to other patients upon whom I have performed

tracheotomy. In one case of malignant disease of the larynx, the patient's breath through the tube produced an intolerable taste. For the purpose of correcting this, I put a small quantity of pulverized charcoal, tied in a small bag, into the glass portion, or what might be called the secretion trap. This has a partially good effect.

Figure 1 illustrated the application of the apparatus. Figure 2 a section of the secretion-trap of the apparatus.

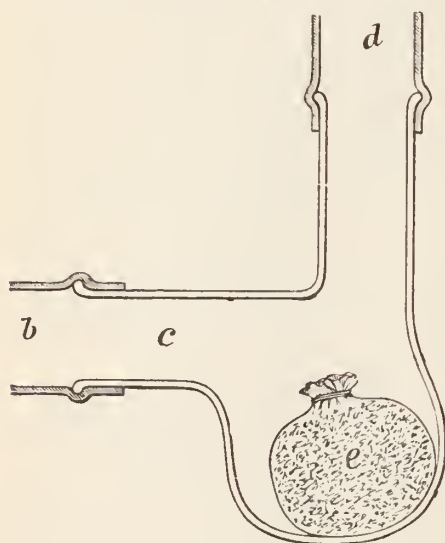


Figure 2. A section of the secretion trap of the Tracheotomy Respirator; *b*, short rubber tube connecting with the tracheal tube; *c*, the secretion trap; *d*, the soft rubber tube, which is about 7 inches long, that passes to the patient's mouth; *e*, a small bag of pulverized charcoal.

### Compound Fracture of Tibia.

A CASE occurring in the service of Dr. Chas. Chassaingnac, and reported (*N. O. Med. and Surg. Jour.*) by Mr. GEORGE SABATIER, Resident Student in Charity Hospital. Left tibia fractured by the kick of a horse; wound,  $2\frac{1}{2}$  in. in length, on inner surface of middle third of the leg, extending upward and inward from crest. At this point the bone was obliquely broken upward and outward, with one and a quarter inch of lower end of upper fragment denuded.

Dr. Parham treated the case. Fragments were brought into apposition, the periosteum drawn over the denuded bone, and the upper and lower margins of the membrane joined with catgut. Bichloride solution ( $\frac{1}{2000}$ ) and iodoform were used on the wound, and drainage secured by catgut strings, soaked in bichloride and placed in the bottom of the wound, the ends protruding. The wound was closed with deep catgut sutures, and a sponge dipped in bichloride put over it; above this, antiseptic cotton; and lastly, gutta serena tissue. The leg was placed in a Bavarian splint. Next evening the temperature was  $102^{\circ}$ . Saline laxative and cinchonidia sulphate were given; fever abated in a day or two. In fifteen days the temperature fluctuated between  $99$  and  $98\frac{3}{4}^{\circ}$ . A foul odor was detected June 4th; general condition good; but the bandage was removed. The sponge was found putrefied, and sutures were gone. A linear cicatrix one inch long was seen, from which a new fleshy growth protruded. This was cauterized with nitrate of silver, iodoform used, and leg replaced in splint. Patient discharged cured, on the twenty-fifth of July.

### On Doubtful Fractures of the Neck of the Femur.

DR. L. A. STIMSON, in an article published recently in the *N. Y. Medical Journal*, makes the following statements:

The symptoms which seem to me specially worthy of attention are the tenderness on deep pressure in front of and behind the outer part of the neck and lack of depressibility at the outer side of Scarpa's space. The latter sign was pointed out a few years ago by Hennequin, and I have found it constant in all well marked cases of fracture and frequent in the doubtful ones,

and have learned to look upon it as an important aid to diagnosis. Localized tenderness on pressure in front and behind seems to me to have the same significance and value as in injuries of other bones—that is, to be strongly suggestive, but not demonstrative, of fracture. Spontaneous pain referred to the outer, anterior, and upper portion of the thigh has been so prominent a feature in four of my cases that it seems proper to ask your attention to it in the future. In none of the four did it appear to be the result of direct violence inflicted upon the region.

These are the only signs that point toward fracture, and they would probably, in most cases, be sufficient to put the surgeon upon his guard were it not for the absence of other signs upon which an unbroken experience has brought him to rely perhaps too implicitly. Shortening is so constant a symptom that, when absent in undoubted cases, it is thought sometimes necessary to invoke a possible asymmetry as an explanation, and in doubtful cases its absence is often deemed an almost certain proof of the non-existence of fracture. And yet a little reflection will show that it is in doubtful cases that shortening is not to be expected—cases in which there is a transverse fracture of the narrow part of the neck without separation, and with preservation of the continuity of more or less of the periosteum, the “cervical ligament” of R. W. Smith, or those in which the line of fracture is irregular and oblique at the base of the neck without splintering or crushing, and with close interlocking of the fragments. Furthermore, the chance of error in measuring is great, and the precautions necessary to escape it are, I believe, not generally appreciated as fully as they should be, for a slight difference in the abduction or flexion of

the limbs is sufficient to conceal a difference of half an inch in length.

Eversion, or loss of inversion, when absolute, depends upon the same change in the relations of the neck and shaft which produces shortening, and consequently its presence or absence has the same value and significance as that of the latter. As a matter of detail, eversion due to muscular relaxation and the unopposed action of the weight of the limb is often present in simple contusion as well as in fracture.

Two other signs upon which much reliance is placed in other fractures—crepitus and abnormal mobility—are commonly sought for in fracture of the neck, and, as they are frequently absent or unrecognizable, their absence is used as an argument against the existence of fracture. Concerning crepitus, it is sufficient to say that it is commonly not to be obtained by such manipulations as are justifiable in the examination, that it is not necessary to the diagnosis, that it should not be sought for, and that no inference should be drawn from its absence. Abnormal mobility is to be found only in the rotation of the limb, and is manifested when present either by the movement of the trochanter along the arc of a circle whose radius is less than normal, because of the shortening of the neck, or, in a more marked degree, by the rotation of the trochanter about the long axis of the shaft without change of place. I shall not spend any time upon the difficulties of the recognition of the first form; it is, in my opinion, a symptom of the study, not of the bedside; one owed more to deductive reasoning than to observation; it is sufficient for the present purpose to note that it can not exist without the association of a deformity that is in itself sufficient to remove the case from the class of doubtful ones.



Loss of ability to use or even to move the limb is so common that the absence of total loss, or, in other words, the preservation of the ability voluntarily to flex the thigh in some degree, to raise the knee from the bed, is by some deemed sufficient evidence of the non-existence of fracture. Not only are the cases above quoted proof that this view is an exaggerated one, but abundant clinical evidence in opposition to it could be produced, and, not to spend further time upon this point, it may be categorically stated that even the patient's ability to walk is not an absolute proof of the non-existence of fracture, however improbable it may seem.

To sum it up, in any given case of injury to the hip the absence of shortening, eversion, cripitation, and abnormal mobility, and the preservation of function even to such an extent that the patient can still walk, do not constitute absolute proof of the non-existence of fracture of the neck of the femur; and, on the contrary, if there be present tenderness on pressure in front of and behind the neck, the probability of fracture is sufficient to justify the treatment of the case as such for at least two or three weeks, or until that tenderness shall have disappeared. Lack of depressibility in Scarpa's space, and possibly persistent spontaneous pain referred to the outer and upper portion of the thigh, are strongly confirmatory of this probability.

Practically, therefore, all such doubtful cases should be treated as though fracture were certainly present. The patient should be confined to the bed, upon his back, and with sufficient extension efficiently to oppose the contraction of the muscles that attach the limb to the trunk. And if the tenderness on pressure persists for more than three weeks, or long enough to confirm

its significance as an evidence of fracture, this confinement to the bed should be maintained for five or six weeks, and the patient should not attempt to bear his weight upon the limb for two or three weeks more.

#### Primary Union of the Axilla After Exsection of Contents.

DR. J. S. WIGHT (*Medical and Surgical Reporter*):

The question of primary union of the axilla, after removal of its contents, has been one of interest to me for years. Under the ordinary methods of bringing the parts together, I have always failed to bring about such a desirable result. After studying the question from many points of view, I thought of the following plan of bringing the wound surfaces in more complete apposition: A long, curved needle is armed with an aseptic silk suture. The needle is held by a strong pair of needle forceps. The point of the needle is inserted about one-half inch from the edge of the lower posterior flap, and carried under the entire bottom of the wound of operation, so that it will come out of the upper, anterior flap, also about one-half inch from its edge. The suture is completely buried in the tissues, so that it can nowhere be seen. From the lower anterior angle of the wound, going upward and backward, I insert five or six of these long, deep sutures. In some instances I have to let the needle come out near the bottom of the wound, and then re-insert it, finishing the complete introduction. This is necessary on account of the needle being shorter than the width of the wound. Now, as to the apex of the axilla: I use a catgut suture, and bury it in the tissues of the entire bottom of the wound. The needle is pushed up through the pectoral muscles, sometimes coming out

quite near the clavicle, and it is then carried back, so as to take hold of the rest of the bottom tissues of the denuded surface, and finally brought out in the anterior flap, just opposite its point of insertion. The case may require two or three of these long and deep catgut sutures. When the sutures are all in place, the cut surfaces are carefully cleaned of any blood and kept as dry as possible by the use of aseptic sponges. The suture near the lower end of the wound is tied first, and then the rest are tied in the order of their insertion toward the apex of the axilla. The catgut sutures are tied last. Then the cut surfaces are brought entirely and completely into apposition, so that the blood ceases to ooze, and so that there is no cavity left for the accumulation of blood under any circumstances. The floor of the apex of the axilla is brought into contact with its roof, and is securely held there by the catgut sutures. The edges of the flaps may now be adjusted more accurately by a few small aseptic sutures, inserted by means of a small curved needle.

#### **Strangulated Femoral Hernia, with Entire Absence of Local Pain.**

IN the *Lancet*, Mr. O. B. SELSWELL, reports the case of a woman, 49 years old, who applied to him on November 20, suffering from very severe abdominal pain, especially on the left side and around and above the umbilicus; vomiting and constipation were also present. These symptoms had commenced on the previous day. It was learned, on inquiry, that purgatives had been employed, but with no effect on the constipation. There was a lump in the right groin, to which the patient had given no heed, as it was not painful. It was of irregular shape and felt very hard, except at the lower part; no im-

pulse was felt on coughing. The diagnosis of hernia was aided by the history that the tumor had appeared suddenly some weeks previously. Taxis was tried, and though it did not produce pain, was without success; and on the next day, as the nausea had increased and the vomit was very offensive, Mr. Selswell operated. The result was entirely successful. This case is interesting and instructive, as illustrating the fact that strangulated hernia may exist with entire absence of local pain.—*Medical and Surgical Reporter*.

#### **Umbilical Hernia.**

PROFESSOR PARVIN treated a case of umbilical hernia in an infant by reducing the hernia, pinching the skin together and painting with collodion, and ordered the painting to be repeated three times a week; the truss that the child had been wearing acted as an irritant and had to be changed every few weeks.—*Coll. and Clin. Record*.

#### **Treatment of Epistaxis.**

DR. J. ROBINSON, of Kansas, speaking of the treatment of this affection in the *Therapeutic Gazette*, says:

It is a well known fact to anatomists and others, that the hemorrhage in the vast majority of cases proceeds from the septum-nares, and is supplied by a branch of the superior coronary, a branch of the facial, which ramifies in the septum-nares. It enters the opening of the nose just below the alae nasi, crossing the superior maxillary bone at that point.

Now, in a practice of nearly thirty years, I have had many cases of epistaxis, and have never in a single case failed to arrest the bleeding by compression of the aforesaid artery, with the finger applied over its track, making firm pressure against the bone. This

will arrest the bleeding in nine hundred and ninety-nine cases in a thousand. I have been called to see cases when other physicians had plugged the nostrils, and injected solutions of ferri persulphas, ice water, etc., without benefit, and have at once arrested all hemorrhage instantly by the above simple means. Tell them to try it.—*South California Pract.*

#### **Sodium Sulphobenzoate as an Application to Wounds.**

Is highly recommended by M. HECKEL, of Marseilles, who has employed it in the Hôpital St. Mandrier, at Toulon. Stress is laid upon the fact that it is free from the occasional unpleasant effects of many other antiseptics in use.—*N. Y. Medical Journal.*

#### **Treatment of Bunions.**

DR. ROBERT T. MORRIS, of New York, first discusses the nature and manner of production of bunions, and gives a treatment based upon his knowledge and experience. In a patient not far past middle age, whose hallux bursa has not suppurated, inflammation is subdued by elevation of the foot and the alternate use of hot and cold water. If there be a well marked corn over the bunion, apply twice daily for a week a solution of one dram of salicylic acid in flexible collodion, and soak the foot in hot water for fifteen minutes. The corn can then be removed. A broad toed laced shoe is worn during the day, or a slipper in severe cases, but neither should be worn continuously at first if the deformity be great. Court-plaster over the site of the bunion prevents quick recurrence of the corn. If the external lateral ligament of the great toe joint is shortened enough to cause pain after the compartment shoe has been worn for three months, the liga-

ment must be cut by open incision, cocaine being used according to Corning's method. The wound is closed completely, a firm compress applied, and the toe held in position by a splint of gauze lined thin wood. The foot may be used three weeks after the operation. When the walls of the bursa are much thickened, the sac is to be dissected out. Where exostosis, or bared bone, or firm ankylosis exists, the head of the metatarsal bone should be excised, and it is imperative that the procedures be conducted in such a way as to avoid suppuration.—*St. Louis Medical and Surgical Journal.*

#### **Treatment of Mammary Abscess.**

DR. CHAS. P. NOBLE (*Medical and Surgical Reporter*):

From the therapeutic standpoint, mammary abscesses may be divided into those of recent formation and those of longer duration. The treatment of recent cases, those in which the abscess has not discharged, is similar, whether sub-dermal, parenchymatous or sub-mammary. The sub-dermal abscesses, usually connected with Montgomery's glands, are generally trivial, and would doubtless heal after incision without special precaution. It is more than questionable whether sub-mammary abscesses are not simply parenchymatous abscesses where the pus has burrowed posteriorly in seeking an outlet. So that practically we have the parenchymatous abscess to deal with. The indications are to evacuate the pus and promote the healing of the cavity. These are met by an incision sufficient for drainage, with the antiseptic dressing. The incision and manipulations are so painful that ether is required. The service at the Charity has afforded but few cases of this class, and these, with but one exception, were outside

cases. This woman was syphilitic and septic. In the maternity wards strict prophylaxis is maintained, with the above happy result. The operation is done as follows: After etherization, the breast and surrounding parts are scrubbed with soap and water, and then disinfected with sublimate solution (1-2000). A radial incision one-half inch long is made down to the abscess. If the amount of pus is small, and seems to be thoroughly evacuated, the cavity is irrigated with the sublimate solution and the dressing applied. Otherwise the finger is introduced, neighboring abscesses, if any, are opened, necrotic septa broken down, and the necrotic masses thoroughly removed by irrigation. Large cavities with communicating sinuses are packed with sublimate gauze; in moderate sized cavities the drainage tube is used. The dressing consists of sublimate gauze, absorbent cotton and the roller bandage. In the milder cases redressing is not practiced for several days, without special indications; in the others, after twenty-four or thirty-six hours. Then the packing is removed, irrigation practiced, the tube or a smaller amount of gauze inserted, and the dressings re-applied. The process is repeated when the discharges soak through the dressings. Healing has been rapid and without incident.

In the cases of longer duration the condition is usually one of mammary fistulæ with recurrent abscess formation. The so-called pyogenic membrane is present. Several cases with extensive sloughing (one during pregnancy) have been under care. The same operative technique is observed. The incision, or incisions, are frequently extensive, the radial direction being observed as nearly as possible to avoid cutting across the milk ducts. The neighboring ab-

scesses are carefully opened; the partition walls broken down with the finger, or incised; the walls of the sinuses and abscesses scraped with the finger or curette; and the whole disinfected with sublimate solution, and the detritus removed with the irrigator. The operation is sometimes extensive, and the amount of blood lost considerable. In these cases sutures are introduced whenever primary union can be gotten or contraction favored. Equable pressure, secured by cotton and the bandage, greatly favors closure of these cavities. The drainage tube and gauze packing are used, and the after treatment is similar to that described. In no case has there been a failure to obtain a cure, in some brilliant results were attained, and in general the healing process was steady and progressive. In some cases granulation was stimulated by the occasional use of silver nitrate. Sublimate irrigation favors granulation. Nursing from the affected breast is suspended, and the patient confined to bed until the healing process is far advanced. The essentials aimed at in this method are thorough opening and evacuation of all pus sacs, thorough drainage, and thorough antisepsis, together with the enforcement of perfect rest. The method is based on that of Billroth, and is, indeed, but the application of general surgical and Listerian principles.

#### VENEREAL DISEASES.

##### Surgical Diseases of the Inguinal Glands and their Treatment.

DR. WALTER B. PLATT read a paper which was published in the *Md. Medical Journal*, in which he says:

After some remarks upon the anatomy of these glands and their grouping, he said the superficial glands interest us chiefly from a surgical standpoint, for



they enlarge or inflame from any lesion of the region in which their branches arise. The diagonal group in diseases of the prepuce or urethra, while the vertical cluster may be affected by any inflammation of the skin of the foot, leg or thigh. There is, however, no sharp line of division surgically, since we may see both groups affected by a sore in either of the above regions.

Until recently it was considered abnormal if any glands could be felt through the skin. It has, however, recently been shown by a careful German observer that in that country, at least 90 out of 100 men, have palpably inguinal glands, larger or smaller.

After a short résumé of their structure, their function was said to be twofold, viz.: they alter the lymph current by adding leucocytes, and thus become genuine incubators for turning out these corpuscles. A second function seems to be to detain injurious germs on their way to the interior of the body, long enough, in many cases, to exhaust their vitality and prevent serious general disturbance, even at the sacrifice of their own structure in an abscess.

Omitting malignant disease of these glands, buboes were classified as acute, and acute again divided into: 1. Simple. 2. Gonorrhœal. 3. Chancroidal.

The chronic into: 1. Any of the above may become chronic. 2. Syphilitic.

*Acute Buboes.*—These may be simple, due to herpes, balanitis, or to germs in the general circulation calculated to light up glandular inflammation.

They have the greatest similarity to gonorrhœal buboes, in being of short duration, causing little inconvenience, and in their tendency to subside spontaneously within two to three weeks, or sooner. Moreover they rarely suppurate.

*The Gonorrhœal Bubo.*—Is by no

means a constant companion to gonorrhœa, although a severe case seldom runs its course without some enlargement and tenderness of the inguinal glands. This form of bubo appears usually within the first two weeks after the beginning of the discharge. If later, it is due to some complication, it is found just below Poupart's ligament, and towards its inner attachment; it usually involves one of the larger glands, and varies in size from that of a cherry to a pigeon's egg; although it may suppurate it rarely does so, and disappears after two to three weeks. In my notes of twelve cases of gonorrhœa, in five enlarged glands were present. In four of these the glands were tender as well.

We feel just beneath the skin of the groin a round or oval body, smooth and slightly movable; sometimes they remain enlarged although less tender for months, and then call for active treatment. Now that the gonococcus of Neisser is generally recognized as the actual cause of gonorrhœa, we shall hear less about "sympathetic glandular enlargement" or "enlargement from irritation."

*Chancroidal Bubo.*—The acute chancroidal bubo is a consequence of the local venereal ulcer, and is simply a chancroid of the inguinal glands. It involves but one or two of these as a rule, and occurs once in three cases on an average; most frequently in feeble or neglected subjects, such a bubo runs its course with fever. It is apt to suppurate quickly after adhering to the underlying skin. It may continue suppurating for an indefinite time, and in such a case soon involves the tissues of the groin. Some writers distinguish an ordinary, from a virulent bubo, the latter being more active in its course and phagedenic in character. It is not

unlikely that this is due to less resistance of the individual's tissues, or to an added germ destructive in its tendency. The pus from a chancroidal bubo, if inoculated upon the same or another individual produces simply a chancroid.

A chancroidal bubo may remain localized, or may extend over the lower abdomen or down the thighs.

A form of bubo chronic, as it presents itself in hospital practice, is the following:

A patient comes with a history of a preputial ulcer of short duration, the glands in one or both glands are considerably enlarged, slightly if at all tender; they cause inconvenience only by their size and liability to trauma. There is no evidence of syphilis, and the neighboring tissues are to be seen.

Another form is where such a bubo has suppurated, leaving a discharging sinus, which burrows up and down the groin, attacking several glands, cementing them and the infiltrated tissues about, into a brawny mass with an ill defined edge. In this may be two or three openings which will discharge a thin pus for years, unless the surgeon interferes.

It is well known that the chronic buboes of syphilis rarely suppurate, although Jonathan Hutchinson, who maintains that whatever may be the character of the primary sore, the chances are two to one in favor of syphilis, also believes that "an infecting (syphilitic) sore may cause suppurating glands, while the non-infecting sore may be attended by quite a moderate degree of enlargement of glands."

When syphilitic buboes do suppurate, it is not unlikely that a preceding or coincident chancroid has left enlarged glands of low resisting power, which need but a slight added inflammation to

cause them to break down. Ricord designates the chronic buboes of syphilis as the pleiades since there is usually one large, with 2-6 smaller glands lying about it. These glands are indolent, painless, multiple, not matted together, and may be unilateral or bilateral; they appear about two weeks after the chancre, and last weeks or months; they finally disappear, either spontaneously, or more rapidly after judicious treatment.

*Treatment of Buboes.*—The acute buboes of gonorrhœa, herpes or balanitis and the acute bubo of unknown origin, seldom suppurate, and require for their treatment little more than protection from friction or trauma with rest in bed for complete cure by resolution. In a subject liable to glandular enlargement elsewhere, they may suppurate or remain permanently enlarged. If suppuration is inevitable frequent poulticing, followed after a day or two by a free incision under antiseptic precautions, will usually bring about a speedy cure, rest in bed being maintained; sometimes the frequent application of an ointment composed of equal parts of glycerine and extract belladonna, seems to prevent suppuration. Ung. hydrag. is much used in Germany with the same intention. A method largely employed in Roosevelt Hospital, New York, consists in the rapidly repeated passage of the thermo-cautery at a black heat over the bubo; this reddens the skin without blistering it or causing pain.

It is said to be very effective in causing the rapid disappearance of these buboes.

Another method useful in subacute buboes, consists in the injection of 15 to 20 drops of a solution of carbolic acid, 1 to 60 in water and glycerine, into the substance of the bubo. This should be repeated every second day

and later every day, three to four times in all. I have tried this method in six or seven cases and have seen the rapid disappearance of the glandular swelling in several of these.

After a reference to the antiseptic treatment of chancroidal bubo, the importance of constitutional treatment in syphilitic bubo, and to the importance also of firm pressure by means of a sausage shaped pad in almost all forms of chronic bubo (the pad being kept in place by elastic webbing), excision of chronic buboes was discussed.

Excision of inguinal glands is best performed as follows: an incision is made over the most prominent part of the indurated mass, parallel to Poupart's ligament, extending to its extreme limits; the skin with the underlying fat is dissected up far enough to get around the abnormal tissue. If the glands alone are implicated remove them with finger or the handle of the scalpel, unless too firmly attached, when the knife is to be used. If the neighboring tissues with the glands are involved, the entire mass ought to be dissected up when possible without injury to the larger vessels and nerves. Great care must be taken to avoid wounding the saphenous and femoral veins. The wound is now brought together by deep sutures, inserted far enough from the edges to secure a firm hold. If the ends of the sutures pass through ivory or lead plates, or what are quite as good, large china buttons, the tension is divided, and the wound better approximated. One or two drainage tubes are indispensable, and an antiseptic dressing is applied over all.

It is important to do this operation antiseptically and secure union by first intention, since long continued suppuration is the rule in wounds or abscesses of the groin treated in the old way.

Previous to operating the skin ought to be carefully shaved, cleansed with soap and water, followed by alcohol or ether, and finally with sublimate solution. The sinuses, if any are present, should be thoroughly syringed out with an antiseptic solution. I have seen the most rapid union after excision of inguinal glands done in this way. The dressings should be firmly bandaged in place by means of elastic webbing such as is used for suspenders. A disagreeable result of this operation, especially apt to occur where the region is deeply incised and scraping done, is sloughing of the scrotum.

#### Contribution to the Etiology of Congenital Syphilis.

IN addition to the intrinsic importance of the subject, the question of congenital or hereditary syphilis is one that possesses great interest to the student, because of the many uncertainties connected with it. Syphilographers are now very generally agreed that a syphilitic woman may beget a syphilitic child without infecting her husband, and some believe that a man who is a sufferer from the disease in its later stages may beget a syphilitic child while the mother escapes infection. Although there is little doubt concerning the first, of these points, there is, nevertheless, much dispute as to the time at which the child becomes infected. It was formerly held that a woman who did not acquire the disease before the seventh month of gestation would give birth to a healthy child. Chaballier has reported a case in which a woman became infected sixty-three days before the birth of a syphilitic child. But an instance is now related by Dr. F. Sorrentino, in *La Riforma Medica*, in which the date of infection was but fifty two days before delivery.

A woman, 26 years of age, of sound general health, had been married at the age of 20, to a coffee-house keeper, by whom she had had two healthy children born at term. In May, 1886, her husband left her, when she was two months pregnant, and went to Marseilles on business. He returned home on November 14, and had intercourse with his wife at that time, infecting her with a syphilis which he had contracted during his absence. Fifteen days after the primary sore was noticed an extensive roseola appeared, which was treated energetically by subcutaneous injections of mercuric chloride. The child was born on January 5, fifty-two days after the mother's infection. It seemed at first to be healthy, but soon manifested the symptoms of hereditary syphilis. There was no sore about the lips, mouth or pharynx to suggest the possibility of infection from the mother post-partum.

This case, if all sources of error can be excluded, would appear to demonstrate conclusively that a woman may give birth to a syphilitic child when her disease is contracted later than the seventh month of gestation.—*Med. Record.*

## DISEASES OF THE EYE AND EAR.

### Concomitant Convergent Squint.

DR. P. H. MULES (*British Medical Journal*), gives his views on the above subject in the following propositions :

1. Concomitant convergent squint has no existence except in eyes which are, or have been hyperopic.

2. Myopia can develop in an eye originally hyperopic. Donders disputes it, but I have at least one case—that of a young school teacher—where it is indisputable. This probably accounts for concomitant convergent squint in myopes.

I have never seen a case such as Schweigger describes, of persistent concomitant convergent squint commencing in an adult myope. The observation he makes, that it is in these cases that distressing diplopia occurs, is to my mind strongly suggestive that they were originally cases of "paresis of external rectus," rather than "concomitant convergent squint."

3. The corneal obliquity of a squinting eye favors ulceration and keratitis—a correcting tenotomy often effects a rapid cure.

4. Corneal opacities cannot determine a squint save in a hyperopic eye.

5. The hyperopic is associated with skull development of a type suggestive of high intellectual possibilities. Strong corroborative evidence is furnished by Thompson in his journey through "Masai Land," where he noted the "Matumbato," otherwise a handsome race—the cream of Central African savagedom—nearly all squint; whilst the true negroes are exempt.

6. The hyperopic is not a retrograde eye, but one partly of arrested development, and partly arrested growth. The most important arrest of development is "retinal," the arrest of growth "diametric." Donders and Iwanoff note the small optic nerve of hyperopic eye suggestive of defective retinæ, and diametric arrest is well established.

7. The developmental arrest explains the frequency of "monocular vision" in hyperopes, it may be referred to a "functional disability."

8. There is no compensatory focal shortening of the lens in hyperopic eyes.

9. All parallel rays converge to a point behind the receptive layer, whilst the hyperopic eye is at rest.

10. To bring parallel rays to a focus on the receptive layer in a hyperopic



eye, accommodation power must be used.

(The word accommodation is used to express a compound of "power" and "amplitude" or "range," but it is necessary to separate and define these accurately. The power being the "vis" of the ciliary muscle, a by no means constant quantity, but liable to fluctuation from loss of nerve force and other causes. The range, the distance between far and near point, which the "vis" allows the eye to appreciate—a loss of range does not necessarily indicate a loss of power.)

11. Sufficiently developed ciliary muscles can, without excessive brain effort, at an early age focus parallel, even divergent, rays on the receptive layer of a hyperopic eye.

12. Insufficiently developed ciliary muscles in hyperopic eyes, at an early age, require the stimulus of convergence to attain accurate definition of distant objects—in other words, undue accommodative effort involves convergence.

13. The inter-dependence of the muscles of convergence and accommodation are extremely complex, and not yet fully understood; for, whilst capable of acting independently, a given amount of accommodation in emmetropia is mentally associated with an equivalent of convergence, whilst in hyperopia not only may they be disassociated to a point, the limit of which is indefinable, but the equivalent of convergence is likewise displaced; it is a clinical fact of great interest that "idiopathic ciliary tumors" spring from the ciliary body at a point corresponding to the insertion of the "internal rectus tendon."

In emmetropic eyes the habit of binocular fusion, as well as the proper balance of convergence and accommodation, becomes established when the child uses its eyes for near objects, that

is, from three to four years of age, the age when concomitant convergent squint usually appears. That accommodation power can be used in hyperopia even to a high degree without the stimulus of convergence, or in myopia, convergence without accommodation, are important physiological facts demonstrating their voluntary nature and the power which an abnormal refraction exercises over the associating centres.

14. Where in the hyperopia of early life accommodative power, associated with convergence, cannot define clearly or produce even approximately correct vision, the eyes accept the circles of diffusion, and cease to call on convergence. Thus squint is rare in high degrees of hyperopia. (This is the reason why, at a late period, when from loss of lens elasticity accommodation power can no longer define accurately, absolute hyperopia supervenes, but no squint is produced.)

15. Excessive call on accommodation power over-develops the ciliary muscles, so that in adult hyperopia Iwanoff demonstrates marked ciliary hypertrophy.

16. This advancing ciliary hypertrophy is the explanation of the natural cure of squint up to a certain age, and the divergence which after some months occasionally attends a well balanced tenotomy; hence, the need of great caution in tenotomising young eyes.

17. By the introduction of ciliary hypertrophy nature has indicated her own method of cure, as well as the rational treatment of squint, which is to: (a) Define the hyperopia accurately under atropine at an early age when the lens is specially resilient—here retinoscopy is indispensable; (b) under-correct with lenses so that sufficient stimulus remains to the ciliary muscles to continue developing; (c) assist, if necessary, by weak

eserine or pilocarpine; (*d*) avoid prolonged use of atropine, which attenuates the natural compensation, and by apparently curing the squint does so at the cost of the ciliary muscle, developing an absolute hyperopia; (*e*) gradually cease using spectacles as the squint disappears, and facultative hyperopia—nature's aim and end—is established. (The tendency to force spectacles upon all ametropes is a grave mistake, a considerable amount of ametropia being preferable to the constant use of spectacles, but here, of course, each case takes its standpoint on its special requirements.)

It is conceivable that the inordinate thickening of the ciliary muscles in hyperopic eyes may, in connection with the increasing growth of the lens, be an important element in the production of glaucoma.

18. Spasms of the ciliary muscles is a pathological condition, tetanic in character; it is due to hyper-accommodation, is never permanent, and will give way to glasses; it is impossible to forecast the amount of spasm. I have seen a 3.5 D of myopia replaced by a 7 D of hyperopia under atropine.

19. Spasm of the muscle of convergence, also pathological, has a tendency to become permanent, when once tetanised shortening and hypertrophy occur, with true insufficiency of its opponent, and operative interference is indicated.

20. *Amblyopia*.—Amblyopia may be retinal, corneal, or both: (*a*) Retinal through arrested development and feeble conducting power, it is fixed and irremedial; (*b*) corneal when astigmatic amblyopia exists, often associated with dull retina.

21. Anisometropia, with emmetropia of one eye and hyperopia of the other, is often associated with a high

degree of retinal amblyopia in the hyperopic eye; here, of course, there is no squint.

*Squint*.—The onset of squint gives important indications for prognosis and treatment. Squint is “permanently alternating” only when visual acuity is equal in both eyes. Hesitating when visual acuity is slightly defective in one eye—weak fixation. Absolute when visual acuity is markedly deficient in one eye—bad or negative fixation.

22. Accurate determination of visual acuity or fixation at the onset of squint is well nigh impossible, from the youth of the patient.

23. The careful determination of visual acuity before operation is a necessity, and is relatively correct; the estimation of fixing power is essential to a prognosis.

24. Retinal amblyopia, being fixed and irremediable, will not improve after operation.—*American Lancet*.

#### Peritomy by Cauterization.

VACHER speaks very highly of peritomy by the cautery not only in diseases of the cornea and sclera, but also in some of the deeper affections of the eye. It is a circular cauterization without loss of substance, resulting in a groove in the conjunctiva and subconjunctival tissue, and superficial layers of the sclera, which modifies the intraocular circulation and the pain by complete division of the blood vessels, lymphatics, and nerves. Vacher employs the galvano-cautery, using a very fine platinum wire. The results are diminution of pain, hypotonus, and profound revulsion which is preferable to the ordinary conjunctival abrasion. The operation is of easy execution and entirely without danger. Its action is prompt and energetic. It never causes flattening of the cornea, and never

leaves a deforming scar. It is very useful in iritis and episcleritis.—*New York Medical Journal*.

#### The Pupil Symptoms met with after Injuries to the Head.

J. HUTCHINSON, Jr. (*Ophth. Rev.*), continues his remarks upon this subject. He refers to the grave importance of non-sensitive and dilated pupils as a symptom of compression of the brain after head injuries. During the first onset of middle meningeal hemorrhage the pupils may still react to light. While double dilatation may be a symptom materially affecting the prognosis, fixed mydriasis on one side only may, with strong probability, be taken to indicate that the hemorrhage is occurring on the same side as that on which the pupil is affected.

When a meningeal hemorrhage detaches the dura mater, it undoubtedly extends downward toward the base as well as upward. But, owing partly to the numerous foramina in the floor of the middle fossa to which the dura mater is firmly attached, the clot finds increasing difficulty in forcing up that membrane, and cases in which the blood has actually reached the neighborhood of the cavernous sinus are very rare. Hence the pressure on the third nerve must be exerted indirectly through the crus cerebri and a considerable part of the cortex.

But the pupil symptom is found to occur before hemiplegia of the opposite side develops, sometimes coinciding with convulsive movements of the arms and legs and rigidity of the opposite side. These symptoms, with dilatation of the pupil, would be at first explained by irritation of the ascending frontal and superior frontal convolutions. Beck's case, reported by Jacobson, seems to

show that one-sided mydriasis is not due to pressure on the third nerve, but is probably to be ascribed to pressure on some cerebral centre. Compression mydriasis sometimes exceeds that due to complete paralysis of the third nerve due to other causes. Pressure on the trunk of the third nerve will not explain the numerous cases in which double mydriasis is present.

Nor will irritation of the superior frontal convolution account for the others in which unilateral mydriasis is present, since the dilatation should be symmetrical and associated with other symptoms. Probably pressure transmitted to the corpora quadrigemina must be taken as the explanation. This will explain why the mydriasis is found chiefly, but not solely, on the same side as the hemorrhage.

*The Lesions of the Cervical Sympathetic.*—Three ocular symptoms are to be referred to paralytic lesion of the cervical sympathetic: 1. Inability of the pupil to dilate in a dim light, although it will still respond to atropia. 2. Diminution in the vertical measurement of the palpebral fissure. 3. Slight recession of the globe.

Hutchinson summarizes the chief points in his paper as follows: 1. In most cases of concussion, for a variable time, depending on the severity of the injury, the state of the pupil resembles that met with in ordinary anæsthesia—i. e., slowness in responding to light, without marked myosis or mydriasis. 2. In a small proportion of cases of concussion, temporary mydriasis (on one or both sides) is met with. 3. When inflammatory reaction follows severe bruising of the brain, myosis is the rule. 4. In compression of the brain from meningeal hemorrhage, mydriasis on the side of the lesion is met with in at least half the cases, double mydriasis

occurring next in order of frequency, myosis being very rare. The pupil symptom here is probably dependent on pressure of the corpora quadrigemina rather than on the trunk of the third nerve. 5. In cases of injury to the cervical sympathetic, active myosis does not occur, but the pupil on the side affected will not dilate in dull illumination.—*New York Medical Journal*.

## DISEASES OF THE SKIN.

### Treatment of Diseases of the Skin.

*Acne*.—Take of tincture of green soap, 3 ounces. Use in obstinate cases of acne—add a teaspoonful to one or two tablespoonfuls of water, and sponge over the surface every second or third day.

Take of extract of erythroxylon, 1 dram, ointment of oleate of zinc, 2 drams, ointment of rose water. Mix. Beneficial in soothing acne spots.

Take of naphthol, 10 gr., sublimed sulphur, 1 scruple, simple ointment, 1 oz. Mix.

Take of ointment of nitrate of mercury, 3 drams, oil of chamomile, 5 drops, ointment of benzoated oxide of zinc, 5 drams. Mix.

Take of tincture of witch-hazel,  $\frac{1}{2}$  oz., spirit of lavender, 1 dram, potash or soft soap, 2 drams, alcohol, 4 ozs. Mix. To stimulate indurated acne spots.

Take of sublimed sulphur, 20 grs., ammoniated mercury, 10 grs., oil of camphor, 5 drops, ointment of oxide of zinc, 1 oz. Mix.

Take of boracic acid, 1 dram, distilled witch-hazel, 2 ozs., rose water, 3 ozs. Mix. Use especially in black heads, or acne punctata.

Take of sublimed sulphur,  $\frac{1}{2}$  dram, thymol, 3 drops, oleate of zinc, 1 scruple, lanolin,  $\frac{1}{2}$  oz. Mix.

Take of carbolic acid, 2 grs., ointment of oleate of lead, 2 drams. Mix.

Take of ammoniated mercury, 5 grs., oil of chamomile, 4 drops, ointment of oxide of zinc,  $\frac{1}{2}$  oz. Mix.

Take of sublimed sulphur, 1 scruple, oil of juniper, 10 drops, carbonate of zinc, 1 dram, ointment of rose water, 1 oz. Mix.

Take of tincture of benzoin, 1 dram, corrosive sublimate, 5 grs., glycerin, 2 ozs., water, 2 ozs. Mix.

*Alopecia*.—Take of bicarbonate of sodium, 2 drams, water of ammonia, 1 oz., tincture of cantharides, 4 drams, spirit of rosemary, 4 drams, oil of nutmeg, 15 drops. Water of cologne, sufficient quantity to make 10 ozs. Mix.

Take of eucalyptus leaves,  $\frac{1}{2}$  oz., lard, 2 ozs. Mix.

Take of fluid oleate of mercury,  $1\frac{1}{2}$  ozs., oil of ergot,  $1\frac{1}{2}$  ozs., oil of rose, 2 drops, oil of bergamot, 4 drops. Mix.

Take of lanolin,  $\frac{1}{2}$  oz., lard,  $\frac{1}{2}$  oz. Mix.

Take of tincture of benzoin, 2 drams, spirit of chloroform, 1 oz., tincture of nux vomica, 2 drams, alcohol,  $2\frac{1}{2}$  ozs. Mix.

Take of ointment of oleate of mercury,  $\frac{1}{2}$  oz., lanolin,  $\frac{1}{2}$  oz. Mix.

*Alopecia Circumscripta*—*Alopecia Areata*.—Take of resorcin, 1 dram, alcohol, 4 ozs. Mix.

Take of fluid extract of pilocarpus, 1 oz., spirit of ammonia,  $\frac{1}{2}$  oz., soap liniment,  $1\frac{1}{2}$  ozs. Mix.

Take of ointment of oleate of mercury,  $\frac{1}{2}$  oz., oil of chamomile, 10 drops. Mix.

Take of thymol,  $\frac{1}{2}$  dram, castor oil, 2 ozs., almond-oil, 2 ozs. Mix.

Take of oil of turpentine,  $\frac{1}{2}$  oz., soap liniment, 4 ozs. Mix.

*Anidrosis*—*A Decreased or Complete Cessation of the Secretion of Sweat*.—

Take of lanolin,  $\frac{1}{2}$  oz., oil of eucalyptus, 10 drops, lard,  $1\frac{1}{2}$  ozs.—*Medical Register*.



### Seborrhœa Treatment.

DR. GEORGE HENRY FOX (*Diseases of the Skin : Atlas and Text Book*) :

After bathing the skin with soap and hot water and carefully drying it, the application of precipitated sulphur, tannic acid, or some other astringent powder, is usually beneficial. If there be a tendency for thin crusts to form over the affected surface, the following ointment, lightly applied by means of the finger, is preferable :  $\mathcal{R}$ . Washed sulphur, 8 parts; balsam of Peru, 2 parts; petrolatum, 40 parts.—M.

In obstinate cases of seborrhœa of the nose, and these cases are generally obstinate, I have obtained the best results by having the patient rub the nose vigorously, before going to bed, with a soft linen rag wet with ether, and then apply the following lotion :  $\mathcal{R}$ . Sulphate of zinc, 3 parts; sulphurated potassa, 3 parts; alcohol, 10 parts; rose water, to 100 parts.

In dry seborrhœa of the scalp the crust may be readily removed by soaking it thoroughly at night with olive oil and shampooing the head in the morning with the officinal tincture of green soap. This will leave the scalp clean and natural in appearance, but a cessation of the treatment at this point will be speedily followed by a return of the crust. The patient must therefore be directed to shampoo the head twice every week, or oftener, if it seems necessary, and to apply, meanwhile, some stimulating ointment every night. Hyde recommends the following :  $\mathcal{R}$ . Oil of sweet almonds, 10 parts; carbolic acid, 1 part; alcohol, to 100 parts; oil of bergamot, q. s.—M.

### The Treatment of Acne.

UNNA divides acne into two clinical divisions : 1. The process of closing of

the follicle and formation of the comedo ; 2. the process of suppuration of the follicle. Comedones are the evidence of the abnormally close coherence of the corneous layer of the skin in the parts supplied with lanugo hairs. The corneous layer becomes thickened and closes the mouth of the follicle. The comedo forms on account of the continuance of the parakeratosis on the inside of the follicle. The indications to be met in the treatment of acne are two : 1. The loosening of the corneous layer of the skin ; 2. the killing of the staphylococcus. We can fulfill the first indication in public practice by the use of green soap, acetic acid, a five per cent. caustic potash solution, and salicylic acid plaster. In private practice these are too rough procedures, and it is better to use sulphur with carbolic acid, or resorcin with corrosive sublimate. Two or three times a week it is well to scrape off the whole diseased parts with the curette, open all pustules, and squeeze out all comedones. The patients should wash with warm water and soap, and follow this, if their skins are tender, with a powder of oxide of zinc and flour. During the night the medicament is best applied in a paste ; during the day in a watery or spirituous solution, two or three times daily after washing. Thus, at night, we might prescribe :  $\mathcal{R}$ . Benzoinated zinc ointment, 86 parts; precipitated sulphur, 10 parts; siliceous earth, 4 parts.

And by day :  $\mathcal{R}$ . Resorcin, 2 to 5 parts ; glycerine, 1 part ; orange flower water, 20 parts ; alcohol, 80 parts.

Or by night :  $\mathcal{R}$ . Benzoinated zinc ointment, 80 parts ; resorcin, 10 parts ; siliceous earth, 10 parts.

And by day :  $\mathcal{R}$ . Corrosive sublimate, 0.05 to 0.2 parts ; glycerine, 1 part ; orange flower water, 20 parts ; alcohol, 80 parts.

## FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

**Dr. C. B. Porter on Fracture of the Sternum, with Dislocation of Fragments; Restoration to Place by Treatment by Position; Recovery.**

FRACTURE of the sternum alone is an extremely rare accident, but as a complication in crushing injuries of the thorax it is associated with fracture of the spine or ribs. At St. George's Hospital, in four years nine cases were examined, three associated with fracture of the spine, and six with fractured ribs. Malgaigne recorded but ten cases, five of which ended fatally on account of complications mentioned above. The causes are usually direct violence as crushing blows upon the chest, though violent bending of the spine backwards has produced it. One case (Chevance's) was caused by violent forward flexing of the body by a fall.

Dr. Fagal, of Mexico, reports this accident as having happened to a celebrated vaulter, who whilst bending his body backward, was endeavoring to lift a heavy weight with his teeth. The complications are injury and inflammation of the pericardium, pleura, lungs, mediastinum, and heart.

Authorities differ as to treatment advised. Some recommend the recumbent position, with a pad between the scapulæ, and head low. Others the sitting posture, with the head thrown back. Others operative measures, as the lifting of the depressed fragments by means of the trephine and elevator, or the corkscrew; while another says that these latter methods are "the relics of the old, cruel, and barbarous surgery." It seems to me that after position and manipulation have failed, and deep inflammation threatens, that some operative interference is indicated,

and especially if the displaced fragment is pressing upon the trachea or the large vessels.

The case I have to report is that of Captain Holden, aged twenty-one, captain of the Harvard football eleven, who stood erect ready to attack one of the opposing team, who was running with the ball. As his opponent neared him he jumped, and his knee struck Holden on the sternum, producing a fracture and dislocation of the upper fragment backwards, the lower one overriding. The point of fracture was at the junction of the second and third pieces of the gladiolus. The ossification at this point is completed between the twentieth and twenty-fifth years of age, so that the separation was of the nature of an epiphysial fracture. There was profound shock and agonizing pain. The depression seemed to be little more than the thickness of the sternum. He was removed to the Massachusetts General Hospital, and in consultation with the other members of the staff it was decided to try the effect of the recumbent position, with hard pad between the shoulder blades, and the head lower than the chest. This position was most painful, and in a few hours the pad was removed.

On the next day there was no change in the position, and the patient suffered greatly from pain in the bowels, which did not yield to cathartics or enemata. He had retention, requiring the catheter. Morphine was given subcutaneously.

On the third day no change. The patient was lifted from the bed to the erect position, and, supported under either arm, was bent backwards as far as possible. This produced a sickening pain at seat of injury, and he feared he would faint, and he was put back to bed. About half an hour afterwards, on coughing and taking a deep respira-

tion, the bone suddenly snapped forward into place. A broad band plaster was immediately applied (such as is used in the fracture of the ribs) to hold the chest walls immovable, and compel diaphragmatic respiration. The plaster was changed from time to time, and there was no re-displacement. There was slight cough for ten days. Eleven days after injury he was up, and in three weeks left the hospital. There was no resulting deformity.—*Boston Medical and Surgical Journal*.

#### Treatment of Compound Fractures.

DR. A. M. PHELPS (*The Post-Graduate*) says :

I believe that all compound fractures should be at once cut down upon for the purpose of thoroughly disinfecting and cleansing the wound ; also to remove all detached spiculæ of bone and any foreign body that might have been carried into the wound by the fractured bone.

At this stage of the operation, if the fracture is found to be oblique, or near the joint, it should be wired, as it is essential for repair to keep the bones and injured soft parts absolutely at rest, and it would be found difficult or quite impossible to do so without securing the fractured bones by wiring. By securing absolute rest of the bones, the reparative process is not interfered with, and a compound will be converted into a simple fracture in a single week.

The size of the external wound should not be considered.

These cases of small wounds are often attended with the greatest amount of injury to bones and soft parts, and will frequently develop the most serious symptoms of wound infection, followed by septicæmia and its consequences.

I cannot too strongly protest against the method of "sealing these small

wounds with adhesive plaster," and trusting the case to the chances of nature. It is as irrational and unscientific as to plaster a punctured wound, trusting that there is no sliver in the flesh. If the bone has been driven through the skin, and has come in contact with infection, which is abundant in the clothing, the wound will quite likely become infected, and our duty as surgeons is quite clearly defined.

#### Methylenchlorid Compared with Other Anæsthetics.

THE number of new anæsthetics, antipyretics, and antiseptics which have in the last few years been introduced into the practice of medicine is truly remarkable. Among anæsthetics the most important discovery was that of cocaine, which has caused such excitement in the medical world. Another anæsthetic, drumin, disappeared after it had gone the rounds of all the leading medical and pharmaceutical journals.

Now another drug has come to the fore the action of which is said to be similar to that of drumin. We sincerely hope that it may prove of greater value and enjoy greater popularity than drumin did. But the number of general anæsthetics has been also increased ; several years ago paraldehyd came into use, and only quite lately has amylen-hydrate been brought before the profession.

However, all these new drugs have failed to take the place of the two principal anæsthetics,—viz., chloroform and ether. These two still hold the position of leading anæsthetics. Perhaps the only preparation which has ever really competed with them is bromide of ethyl ; however, some accidents which have attended its use have considerably checked its career.

But cases of death also occur from the use of ether, and therefore want of

an anæsthetic which retains the narcotic effect of chloroform and ether, but which, on the other hand, is free from the dangerous accompanying effects of both, is keenly felt.

An anæsthetic which to a great extent possesses these qualities is, according to the experiments of Professor Genther and Dr. Eichholz, methylenchlorid. This drug when pure causes quick and deep anæsthesia; it does not, however, influence the circulation or respiration to such a dangerous extent as chloroform. Arguing from the recognized fact that the amount of chlorine contained in the drug is in direct proportion to the danger of its actions, it could be theoretically claimed that the use of methylenchlorid is more advisable than that of chloroform.

Methylenchlorid was used therapeutically by Richardson as long ago as 1867, but its actions were greatly overdrawn, and as the preparation which appeared in commerce under that name was by no means pure methylenchlorid, but a mixture of methylalcohol and chloroform, so the drug was not in a condition to fulfill the expectations which had been raised regarding it. Professor Gutzart proved experimentally that the former method used in preparing methylenchlorid was entirely wrong, that the result of the preparation was not methylenchlorid, but simply a mixture of methylalcohol and chloroform. This method consisted in the treatment of a mixture of chloroform and alcohol with zinc and subsequent distillation. The preparations of Kahlbaum in Berlin, Dr. Schuchard in Goerlitz, and Tromensdorf in Erfurt, which come into commerce under the names of "Commercial Methylenchlorid," and "Methylenchlorat," were nothing but an alcoholic mixture of one part methylenchlorid with four parts of chloroform.

Whereas one hundred granimes (three and a quarter ounces) of this "commercial" methylenchlorid may be purchased for three and five-tenths marks (about eighty-eight cents), the same quantity of the pure drug costs twenty-five marks (about six dollars and twenty-five cents).

The physiological action of methylenchlorid was first examined by W. Panhoff (1881) with the pure material.

Genther and Eichholz compared its actions to that of chloroform on a number of guinea-pigs with the following results:

1. Anæsthesia occurs in about the same time in either drug.
2. Both drugs cause a period of excitement prior to complete anæsthesia.
3. The rapidity of the pulse does not increase during the period of excitement caused by methylenchlorid; it, however considerably quickens during the excitement caused by chloroform.
4. In both drugs, as soon as anæsthesia is complete, there is a slowing down of the pulse and a lessening of the respirations.

These symptoms take place sooner and with greater intensity by chloroform. Stoppage of the pulse and death occur much sooner in chloroform than in methylenchlorid.

5. The fall of temperature during anæsthesia is about the same in both drugs. The greatest fall observed was in chloroform; the fall was from  $35.5^{\circ}$  C. to  $29^{\circ}$  C.

6. In methylenchlorid there is an increased secretion of saliva; this does not take place in chloroform.

7. In methylenchlorid the pupil does not always contract.

8. In methylenchlorid the rigidity of the neck is more noticeable than in chloroform.

9. In chloroform the spasmodic



stretching of the extremities is more marked than in methylenchlorid.

These comparisons speak in favor of methylenchlorid, and one may prognosticate an extensive use of the drug in the future.—*Therapeutic Gazette*.

#### Anal Operations Performed with Antiseptic Precautions and Dressed Antiseptically.

IN the following cases, of which brief reports are given, the routine adopted was as follows. The patient's bowels having been thoroughly evacuated by a purgative (preferably castor oil), and the rectum washed out with an enema of soap and water, a few hours before operation, the perineum was shaved from the coccyx to the pubes, as well as an inch or two of the inner surfaces of the thighs. The parts were then scrubbed with soap and water by means of a nail brush and irrigated with a solution of corrosive sublimate (1-200). In the female, the vagina was also washed out with the same solution. The operation having been performed in the usual way, the wounds were dressed as follows. A cleansed rubber tube about six inches long, and with a lumen of from a half to three-quarters of an inch in diameter, was wrapped from end to end with iodoform gauze to a depth of about a quarter of an inch. The wounds having been carefully cleansed by irrigation with the sublimate solution, this tube was introduced into the rectum to a distance of about an inch above the upper limit of the wound. A sublimated gauze dressing was then applied, through the centre of which the tube protruded for a couple of inches.

This method of dressing, which was adopted by the operator from Professor Küster of the Queen Augusta Hospital in Berlin, is intended to allow of the escape of fecal gases, blood, etc.,

through the tube without soiling the dressing, which remains clean and dry in contact with the wound, and can generally be left undisturbed for from six to eight days, the patient being kept on a low diet, with sometimes occasional doses of opium in pill form to prevent any tendency towards defecation.—*Canada Medical and Surgical Journal*.

#### Surgical Treatment of Deep Seated Perirectal Abscess.

DR. HEINRICH ZELLER (*Beitrag zur Klin. Chir.*), of Tübingen, argues that perineal incision is the most rational and the proper method of opening a perirectal abscess situated above the levatores ani and coccygei muscles, and presenting a prominence and fluctuation within the rectum without forming any appreciable projection on the surface of the perineum. The perineal has, it is urged, many advantages over the rectal incision. The former permits a strict application of the antiseptic method, which, if the abscess be opened by the rectum, must be practiced under very unfavorable conditions. In the perineal incision the abscess is opened at its deepest part, and so a free and ready discharge of the pus is favored. The opening in the perineum can always be made to a sufficient extent, whilst when made in the rectum it will necessarily be limited on account of the risk of bleeding, and therefore is liable to be insufficient for the purpose of draining the abscess. The perineal incision guards against further rupture of the abscess in other directions, and should an urethro-perineal fistula be formed, this can be more easily dealt with than an urethro-rectal fistula. Moreover, the perineal incision has the important advantage of preventing a communication between the abscess and the interior of the intestine. In this contribution

reference is made to seven previously recorded cases of perineal incision of deep perirectal abscess, and reports are given of three recent instances of similar treatment in the practice of Professor Bruns. In those ten cases the patients all recovered. In four cases urethro-perineal fistula had formed in consequence of rupture of the abscess into the urethra before the perineal incision had been made. In each of these instances the fistula retarded the healing of the abscess, but at last was completely closed. In not a single case was the incision into the perineum followed by rupture of the abscess in any other direction. Of the subjects of thirteen collected cases in which the deep abscess was opened by the rectum, two died—one from purulent infection, the other from perforative peritonitis. The perineal incision has been made in some cases in the middle line of the perineum or in a line parallel to this; in others, in the line of the incision for lateral lithotomy; but, as a rule, its situation should correspond with that of the abscess. After the skin has been divided, the surgeon should make his way to the abscess more by the use of blunt instruments than of the knife, and every bleeding vessel must be secured. The depth of the wound, when the abscess has been reached, varies very much in different cases. In each of the three cases reported by the author it was about four inches; in some cases especially when the abscess has descended, it is much less. If the diaphragm of the pelvis formed by the levatores ani and the coccygei has not been perforated, the surgeon must work to a depth of at least one inch and a quarter. If the abscess be large, it will usually be opened without any difficulty. If the incision be made at an early stage, and when the collection is small, the opera-

tion may be facilitated by the introduction of the forefinger of the surgeon's left hand into the rectum, so as to press down the abscess towards the surface of the perineum, care being taken not to carry the knife too near to the gut. The relative position of the urethra to the abscess may be indicated by passing a catheter. After the discharge of the purulent contents, the surgeon should pass his finger into the cavity of the abscess, in order to search for any secondary cavities or prolongations. The cavity should then be washed out with some antiseptic fluid, and, after the introduction of a drain-tube, the seat of the operation should be carefully covered by a dressing of iodoform gauze. —*Journal American Medical Assoc.*

#### Treatment of Wounds by Iodoform Tampons.

DR. F. BRAMANN reports (*Archiv für klinische Chirurgie*) the results of treatment of wounds in von Bergmann's clinic for some years past. The gauze employed is sterilized by means of steam at  $212^{\circ}$ , and after drying may be impregnated with an antiseptic solution. The sterilized gauze is used in cases of trifling operations in small wounds. In larger wounds with more profuse secretion, it was thought best to obtain whatever advantage could be derived from the impregnation with corrosive sublimate, especially as the patients and operators are in the immediate vicinity of an audience coming direct from the anatomical rooms. The cotton employed is of late years merely sterilized. The towels, gum cloths, sponges, etc., are treated in a like manner. The silk used in sutures is wound on glass or metal spools, sterilized by steam, and inclosed in metal caskets. The catgut used for deep stitches (stitches of relaxation), and for ligatures, is kept ten

to fourteen days in a solution of 4 parts bichloride, 800 of alcohol, 200 distilled water. This is frequently renewed. The catgut is then changed to an alcoholic sublimate solution of 1 to 800 alcohol and 200 parts of water, and is taken direct from this. The preparation of the patient consists in giving full baths, washing the region of operation with soap and water, shaving the part, rubbing the skin with ether, and disinfecting it with from 1:1000 to 1:2000 solution of sublimate. The instruments are kept in a 3 per cent. solution of carbolic acid. During the operation the wound is often irrigated with 1:2000 bichloride solution. In operations in the abdomen, the pleural cavity, the mouth, rectum and bladder, salicylic acid 1:1000, or boric acid 1:200 is employed, and at the end of the operation a solution of iodoform in ether is generally used.

Next to strict antisepsis, the complete stoppage of bleeding is regarded as the chief agent in procuring union by first intention.

When the wound is dry, and the smaller bleeding vessels have been tied, the suture is applied with or without drainage, but only in those wounds which are considered absolutely antiseptic, and have not been infected through previous suppuration or contact with unclean materials. Among the cases treated in this manner are included all extirpations of tumors, removals of breasts, amputations, osteotomies, etc.

In wounds where the bleeding cannot be entirely stopped the formation of a large clot is objectionable, not only on account of the pressure which it may make, as in fractures of the skull, but because of the risk of decomposition and blood poisoning. Although such clots may, through absorption and organization into connective tissue, aid

in the process of repair, they sometimes remain fluid for long periods, and during that time are a source of danger. Therefore, when it is impossible to dry the wound absolutely, or where there is the least suspicion that it is not entirely aseptic, after thorough disinfection with 1:1000 bichloride solution and with an ethereal solution of iodoform applied to the wound by means of a syringe, it is loosely packed with strips of iodoform gauze of several feet in length, and three to four inches broad. They are applied so that the larger part of each strip lies in the wound, and the ends come out at the angles. The sutures were formerly put in at this time, but this has been abandoned on account of the difficulty in keeping them disentangled and of their adhesion to the iodoform gauze. The patient is now anæsthetized a second time for the application of the sutures. The tamponed wound is covered with sublimate gauze and cotton and an antiseptic bandage. If the secretions make their way through the dressings, the superficial layers are renewed, but the iodoform gauze is allowed to remain undisturbed for two days. If it is then removed by gentle traction on the ends hanging out of the wound, the latter is found clean, unirrigated, not reddened, absolutely dry, and it is only very exceptionally that a ligature is required. Careful suturing, with or without drainage, has resulted invariably in union by first intention, even in those cases in which, for any reason, as great weakness, or for the stoppage of bleeding from large vessels, the tampon has been left in from four to six days.

His report of his results is extremely interesting, includes a large number of important cases, and appears to confirm his estimate of the value of this method. — *American Journal Medical Sciences.*

**The Indications for the Surgical Treatment of the Deflected Nasal Septum, with an Analysis of One Hundred Cases.**

IN his remarks on this subject, before the Medical Society of New York, Dr. W. C. JARVIS said: There were, definite symptoms and pathological complications easily recognized and explained as being more or less directly associated with deflected nasal septum, and which afforded excellent guides in the treatment of this complaint. Such guides, however, had not been pointed out in any single paper, and it was to supply this want that he addressed the Society.

His cases included only those which had been treated in private practice and of which he had kept the detailed history. In forty-two of the cases the deflection of the septum was to the right, and in forty-seven to the left, while in eleven it was bilateral. Seventy-eight were purely cartilaginous, seventeen were osseo-cartilaginous, five were osseous deflections.

The principal indications for surgical interference was nasal stenosis, which was present in eighty-one of the cases. Among the most important complications which should be recognized from the start as special indications for an operation, were hypertrophies of the turbinated bones. These were present in twenty-four per cent. of the cases of deflection to the right, in eight of which an operation was required to remove the redundant tissue; and in twenty per cent. of the deflections to the left, requiring operative interference in four cases. Posterior hypertrophies were present in fourteen per cent. of the cases. Slight redundancies of the turbinated tissue which were present in all cases of deflected septum, were not considered. The next most common complication was trouble with the ear, it being present in twenty-nine

cases. In some the operation was undertaken for the relief of this alone. The bulk of these were in physicians who recognized the necessity for perfect ear ventilation.

The eye was complicated in a marked manner in eleven cases. Well marked catarrhal headache was present in fifteen cases. Other complications were hay fever, polypi, bronchitis, etc. Hypertrophic rhinitis was present in ninety-four cases; atrophic rhinitis in six.

The stenosis which was so common was in some cases complete, while in others it was incomplete, or alternated from complete to partial. Snoring was common, and while this might occur without stenosis, it was frequently caused by stenosis, and might in persons of delicate health be of serious import. Nasal stenosis was capable of producing pharyngitis, laryngitis and bronchitis. Dr. Jarvis thought it might, under favoring conditions, induce phthisis. It is sometimes caused by a dam-like accumulation of the fluids in the nose, and made an operation necessary to open up the nasal gutters. Some patients had been operated upon unnecessarily, an acute congestion of the turbinated tissues having been mistaken as a symptom of septal deflection. The diagnosis could be made by the lapse of time, use of cocaine and the rhinometer.

Conditions in which an operation was not indicated were named as follows:

1. Extra nasal deflections.
2. Cases in which the septum was deflected, but so far forward as not to interfere with the rise and fall of the turbinated tissue.
3. Deflected non-obstructive septa.
4. Non-obstructive deviations in the nostril exhibiting a pale or normal hue of the pituitary membrane.
5. Slight localized non-obstructive bending of the vomer placed above the level of the nasal floor and occupying the more spacious por-



tion of the nostril. 6. Cases of considerable deflection, non-obstructive, presenting a smooth regular surface and gentle undulation.

In twenty-four per cent. of the cases the snare alone was employed, in twenty-nine per cent. he used the septum scissors, in eleven, the fracture forceps; in six, the surgical drill, and in thirty the electrical drill.

Dr. Bucklin thought we could not form an opinion as to the amount of space required in the nostril for breathing purposes by a comparison with the size of the lumen of the tube used in laryngeal intubation. There should be room for free play of the mucous membrane covering the turbinated bones, which varied with the temperature in different individuals. He thought nasal stenosis required especial attention as it so frequently led to catarrhal deafness. In the class of cases under discussion there resulted changes in the connective tissue in the nose, attended by the secretion of tenacious mucus. This would not cease immediately after removal of the deflection of the septum, overcoming the stenosis, and for that reason patients had often regarded the treatment as a failure in not overcoming the chief symptom from which they had suffered. He had a patient whose commencing phthisical symptoms disappeared at once after overcoming the stenosis.—*Medical and Surgical Reporter*.

#### VENEREAL DISEASES.

##### Surgery of the Urinary Organs.

MR. HARRISON, in his lectures before the Medical Society of London (*British Medical Journal*), objects to the term urethral fever, as misleading, inasmuch as it seems to connect the symptoms with the precise part rather than the process by which they are produced.

He proposes the term "urine fever," as it is produced by the presence of urine in a recent wound, and is probably due to the absorption of some poisonous compound, such as an alkaloid, which is derived either from urine or tissue or wound decomposition, or all combined. This he bases on the following: 1. The presence of urine in relation with a recent wound is necessary for the production of urine fever. 2. The mere contact of urine with a wound is not sufficient for its production. 3. The retention of fresh urine within the area of a recent wound is almost invariably followed by its development in a greater or less degree. 4. Where urine is placed under such circumstances as last mentioned, the liability to urine fever is greatly diminished when it is sterilized by local or general means. 5. The retention of fresh urine, blood, and the *débris* of damaged tissue in the confines of a recent wound for a certain time, at a temperature of about 100° F., could hardly be possible without chemical changes taking place in the constituents referred to. 6. The common origin for urine fever is rendered probable by the uniformity of symptoms attending it, which are identical, whether following a surgical operation or an accidental wound. Certain drugs, by their elimination through the urine, such as quinine, seem to render it less capable of exciting this fever.

Strictures of the urethra he holds to be due to inflammatory exudation thrown out to resist leakage of some of the constituents of the urine through the mucous membrane of the urethra, where from any reason the epithelium is damaged so as to render the canal not urine-tight. Among his reasons for believing this are the secondary implication of the mucous membrane in the stricture forming process, the density

and contractility of the plastic exudation, the character of the cicatrix produced in the healing of a recent wound constantly submitted to the action of more or less pent-up urine, and the form in which the stricture tissue is deposited. After rupture of the urethra, formation of a stricture can, he maintains, be prevented by performing perineal section and preventing the infection of the wound with urine.

Regarding the prostate, he considers it the muscular retentive apparatus of the male bladder, and that its intermittent glandular action is subservient to this continuous physical action. Its fibers are spread out like a funnel, with the apex downward, forming a strong support for the bladder. In the adult man an exceptional degree of pressure is made upon the outlet of the bladder, as the perpendicular axis of the "urine pressure" falls directly upon the outlet, and not partly on the pubic bone, as in the female. Where there are no such physical functions to perform, as in extroversion of the bladder, the prostate as a muscle exists only in a rudimentary form, though the sexual sense may be normal. Hypertrophy first appears for a distinctly conservative object. Projecting nodules he considers structural upheavings of a frequently contracting muscular ring developing in the line of least resistance, and assuming a more lowly organized form than that which was in the first instance developed. To prevent prostatic hypertrophy, and the complications arising from it, care should be systematically taken to preserve the muscular power of the bladder, and to aid it artificially when necessity arises. The timely use of the catheter he warmly commends as warding off changes which unfortunately do not always cease when they have become precisely compensatory.

Recurrence after litholapaxy he places at one in seven. This is the weak point of the operation. He ascribes this largely to the condition of the bladder, which is often in a state of chronic inflammation, predisposing to the deposit of phosphates. As in such cases the calculus is the result rather than the cause of the trouble, he advocates their treatment by lateral lithotomy and drainage of the bladder, with careful cleansing of from four to ten weeks, in order to restore the mucous membrane to a healthy condition.—*N. Y. Medical Journal*.

#### Treatment of Gonorrhœa by Antrophores.

DR. HUGO LOHNSTEIN, of Professor Zuelzer's polyclinic in Berlin, has found, as the result of observations on ninety-three cases, that gonorrhœa, both in its acute and chronic form, usually yields more readily to systematic treatment by a kind of medicated soluble bougies called *antrophores* than to other methods.

These antrophores are made by Herr Stephan, a pharmacist in Treuen, Saxony, and consist of a nickel-plated metallic spiral containing a soft medicated material, the basis of which is gelatin and glycerin,—the same kind of thing, in fact, as the hektograph and other "graph" compositions are made of. Before the introduction of the bougie the urethra is well syringed out by a Zuelzer's apparatus with a two per cent. solution of boracic acid. Regarding this Dr. Lohnstein remarks that the mere passing of urine by the patient is quite insufficient to cleanse the passage from secretion, as any one may easily convince himself by an examination with the endoscope. As a rule, a single bougie is sufficient during twenty-four hours. Indeed, when the introduction was repeated several times a day no better result was obtained, but, on the

contrary, the urethra appeared to be irritated by the instrument. These bougies must be differently applied in acute and chronic cases.

In an acute gonorrhœa, where the prostatic portion of the urethra is not affected, the bougie should not be introduced into it, the surgeon being able to tell when the prostate is reached by the greater resistance caused by the circular muscular fibers. In chronic gleet, where the prostatic portion is affected, the bougie should be made to enter it, but ought always to be kept from entering the bladder, which may bring on strangury and even cystitis. The surgeon guards against this by asking the patient to tell him when he feels as if the instrument were in the bowel. He then knows that it is in the prostatic portion.

The medicament mostly used by Dr. Lohnstein is thallin. For the first and second days bougies containing two per cent. of this substance are employed; even this strength occasionally produces a sensation of burning. On the third and subsequent days a bougie with five per cent. of thallin can usually be borne. It is not found advisable to allow patients to introduce the bougies themselves, for they are liable to set up hemorrhage and to push the instrument into the bladder. In an acute case the thick secretion is usually changed by the second or third day into a thinner and clearer fluid; during the next few days the quantity of this gradually diminishes, and the secretion has generally entirely ceased in from eight to fourteen days' treatment.

Complications such as are produced by injections very rarely occurred; epididymitis never; cystitis in two cases only, and in these it was probably due to faulty introduction of the bougies. Several cases were cured that had resisted other measures. The most diffi-

cult class of cases to treat is, of course, the chronic form. Here it was often found that, though the secretion could be greatly reduced, any attempt to lengthen the intervals of the introduction of the bougies was liable to be followed by a return to the original condition.

Where the prostate and its ejaculatory ducts are affected, it is often necessary to have recourse to bougies of different kinds—*e. g.*, zinc, tannin, rhatany, nitrate of silver, quinine, or sulpho-ichthyolate of ammonium. Of course, where, instead of the mucous membrane generally being inflamed, there is a small ulcerated patch, these bougies are useless, and the endoscope must be employed as a guide to special local treatment.—*Lancet*.

#### Salicylate of Mercury in Syphilis.

DR. ARANJO, of Rio de Janeiro, gives the following résumé of his use of the salicylate of mercury in the *Bulletin de Thérapeutique*:

1. Salicylate of mercury is well borne by the stomach. The gastralgias, enteralgias and diarrheas, which are produced by the other preparations, not excepting the protiodide, do not occur when this preparation is used.

2. In the dose indicated (25 milligrams), stomatitis is never produced.

3. Its internal use acts more promptly and more energetically than other preparations of the same base.

4. Externally, it presents the great advantages of causing rapid cicatrization of mucuous patches and all ulcerative processes. It furthermore causes re-absorption of non-ulcerating syphilomata (papules, tubercles, gummata).

5. In parasitic dermatoses (eczema marginatum of Hebra, circinate pityriasis of Vidal, parasitic sycosis, pityriasis versicolor, tinea favosa and tinea

tonsurans) the salicylate of mercury offers the advantages over other preparations of being without odor and non-irritant when the strength is proportionate to the nature of the affection.

6. The salicylate is efficacious in the most inveterate forms of syphilis, and the author believes it will soon replace the protoiodide, the bichloride and the tannate.

7. In the treatment of lepra, it has given very encouraging results associated with gynocardic acid (active principle of the oil of *gynocardia odorata* or chaulmoogra).

8. It has given excellent results in acute and chronic blenorrhagia.

The author knows many colleagues in Rio who have also used this preparation and speak well of it.—*Md. Med. Journal*.

#### Abortive Treatment of Syphilis.

MR. HUTCHINSON states that in his recent experience when mercurial treatment was begun early for the indurated chancre, no secondary symptoms followed, although tertiary symptoms might develop (*British Medical Journal*). He defines the stages of the disease as primary before the blood becomes contagious, secondary while it is contagious, and tertiary after the contagiousness has ceased. Mercury is to be given in small doses and for a long period of time. To prevent the tertiary stage it might be necessary to use it before there was any infection of the blood—*i. e.*, probably before the induration of the sore and adjacent glands.—*N. Y. Medical Journal*.

#### The Importance of Local Treatment in Syphilis.

THERE are few diseases for which our therapeutical actions are so well defined as for syphilis, yet when and how to use mercury and iodine is the great difficulty

in treating syphilis. The results of neglecting proper local treatment are often very serious. Although there is nothing especially new to be said upon the subject, yet as the text-books usually treat this question in a rather superficial manner, it may be well to call attention to the subject. Constitutional treatment is not, however, to be underestimated. The local treatment may be successfully employed in nearly every stage of syphilis, but those shown in the tertiary form are of the most importance.

Most physicians use the local treatment only for the primary indurated sore. I do not think that excision at this period can abort the disease, as the induration is a sign of constitutional infection. In the case of hard chancre I have found the mercurial plaster useful in making the induration disappear.

After the secondary symptoms have appeared, local treatment is useful. I prefer inunctions, which, besides their constitutional effect, have an undoubted local influence.

Patients generally desire the visible manifestations to disappear from the face and forehead, and for this purpose a ten to twenty per cent. ointment of the white precipitate is successful. For the papular syphilis on the palms and soles, the so called psoriasis specifica, chrysarobin has been used from ten to twenty per cent. strength. Sigmund speaks highly of a one to two per cent. solution of sublimate in collodion, painted once or twice daily on the infiltrated places, avoiding the fissured places. Gilles de la Tourette recommended warm baths, with an addition of one part each of sublimate and of chlorate of ammonium to 2,000 parts of water. Papules on mucous membranes will yield to nitrate of silver.

More important are topical applications, for moist papules or condylomata,



since these are especial sources of infection. For the removal of those vegetations different caustic pastes have been recommended, but they are very painful. I prefer cauterization with the silver stick, previously anæsthetizing the parts with a strong solution of cocaine.

There is rarely occasion to act against the swelling of lymphatic glands. For suppurating buboes surgical interference is necessary.

During any mercurial treatment the mouth requires attention, as the saliva soon becomes impregnated with the drug and causes mercurial stomatitis. Care of the teeth and gums, abstinence from tobacco and the use of an astringent mouth-wash will delay this. Sometimes it is necessary to suspend the administration of the mercury.

In later stages of the disease, local treatment is imperative, and is regarded by Hutchinson as more important than the constitutional. Iodides will not arrest the destruction caused by the ulcers on the skin and mucous membranes, and here local treatment is followed by the most brilliant results. What has been said of the value of local treatment of the skin applies still more to the eye, nose, throat, larynx, and other organs. When one of these is affected there is no time to wait for the effect of internal treatment.

Dr. Dumesnil, of St. Louis, called attention to the use of nitric acid. In anal and vulvar syphilides, he said, constitutional treatment was not efficient, but the local treatment frequently worked like magic.

Dr. Palmer said that the main thing to do was to look at the cause, rather than this or that particular agent. It was especially important to cut off the moisture on which the continuance of the growth depends. We should select our remedy with this purpose in view.

Dr. Ravogli said that he had good results from iodoform, where the patient can not bear other local treatment. As to the general treatment the great question was, how to introduce the mercury into the system.

The form used was indifferent, as it becomes sublimate. He preferred hypodermic injections, since they do not produce salivation.

#### Radical Cure of Hydrocele by Excision of Tunica Vaginalis.

DR. W. W. KEEN reports a successful case in the *Medical News*, and says:

Until recently various methods of injection, especially by iodine or carbolic acid, have been the chief and almost the only means employed in the treatment of hydrocele. They have the great advantage that but few deaths can be laid to the use of iodine, and none I believe, to carbolic acid. But they have several disadvantages.

1. That of recurrence. In over eight per cent. of the cases treated by iodine, recurrence takes place, and this misfortune sometimes even occurs a second time. Carbolic acid has been much less widely used, but its promise as to freedom from recurrence is much better than iodine, and if injection be the method chosen, this would seem to be the preferable one.

2. In a large number of cases additional lesions are found besides the hydrocele, lesions which in the majority of cases cannot be cured by any injection. In 123 cases reported by Juillard and Senzmer, cysts were found in 43, enlargement of the testicle and epididymis in 23, thickening of the tunica vaginalis in 54, false membranes in 26, and free or attached foreign bodies in 3.

3. There is generally great pain.

4. Not seldom severe inflammation and swelling, sometimes suppuration,

and occasionally even gangrene of the scrotum occurs.

5. Even if no such untoward results occur there are great induration, weight, and tenderness in the scrotum, such that the patient is usually laid up for three weeks, and sometimes longer.

Three somewhat different methods of antiseptic incision have been proposed as substitutes for injection, and especially with a view to a more permanent radical cure. Volkmann incises the sac, and after syringing it out with a three per cent. solution of carbolic acid, unites the edges of the tunica vaginalis to the skin, and, after drainage, dresses the wound with an antiseptic compressing gauze and bandage.

Juillard took a step further. After incision of the sac, and removal of all pathological products by the scissors or the spoon from the sac, cord, or testicle, he then resects the superfluous tunic, leaving only enough to cover the cord and testis. The edges of the tunica vaginalis are then sutured with catgut and the external wound closed independently, drainage and antiseptic gauze completing the dressing.

Bergmann (reported by Bramann), went further, and proposed total extirpation of the free part of the tunica vaginalis only leaving that portion attached to the cord and testis. Of course, any other concomitant lesions are appropriately treated at the same time. Bramann reports twenty cases, with rapid cure in eleven days, without fever or suppuration. Bull has reported two cases (hydrocele of the cord) thus operated on, one of which had been twice injected with carbolic acid, and the other once with iodine. Both rapidly recovered. Southam (*Lancet*) reports four cases, one of which had recurred after carbolic acid injection, cured with an equally speedy and happy result.

To these twenty-six cases I add but one, but it is an excellent illustration of the slight reaction following the operation, and of the quickness of the cure. It would seem

1. To be almost an impossibility that recurrence should take place, for practically none of the sac is left, and in so far it would be *a priori* the ideal radical operation.

2. This method facilitates the proper treatment of any additional lesion above described as not uncommon.

3. As is usual after antiseptic wounds, there was little or no pain.

4. As again is the rule in wounds so treated, there was little inflammation, practically no fever, not a drop of pus, and no seeming possibility of gangrene.

5. There were only moderate induration, weight, and tenderness, so that the patient was up and about on the seventh day, and was ready for discharge on the eleventh day entirely cured and comfortable.

6. Although a more radical operation than that of Volkmann, it is less painful and less dangerous. In 254 cases collected by the writer, recurrence is noted in three, and two died of septicæmia and pyæmia, while abscess, sloughing, and orchitis have all occurred. Induration, weight, and tenderness, have persisted from three to four weeks. The conditions after resection of the entire tunica vaginalis and immediate closure of the wound, with drainage and antiseptic dressing, are such as to favor the speediest and safest recovery, without any of the dangers above noted as following antiseptic incision.

The case is also a good illustration of "the conditions conducive to the earliest possible healing of operation wounds," to which I have called attention in a paper with the above title, read before the Surgical Section of the

New York Academy of Medicine (*Medical Record*), especially the method of drainage by horsehair instead of rubber, glass, or bone tubing, as is suited best to so small a wound, and the change of dressing on the day after the operation, recovery being complete in seven days.

## DISEASES OF THE EYE AND EAR.

### Molasses in Conjunctival Affections.

DR. HENRY F. WOLFNER, says: About one year and a half ago, I was told by several practitioners who attended the Post-Graduate School, that there had been a traveling eye doctor in their neighborhood, who was very successful in the treatment of chronic conjunctival inflammations; the remedy he used looked like molasses and tasted sweet. Knowing that sugar had been used, at least in the lower animals, in interstitial corneal infiltrations with considerable success, and that it was still sometimes applied to granulating ulcers for its slight caustic effect, I classed molasses with the other irritants, and made up my mind to see if there was any special virtue in this new medication. It has now been used in almost every case of chronic conjunctival affection that I have seen at the clinic, and for the last year I have also used it in private practice. My observations lead me to believe that it has some special virtue, as cases which had formerly been treated with sulphate of copper, nitrate of silver and jequirity unsuccessfully, almost immediately commenced to get better under its use. Most good has been accomplished in those chronic cases, which although the granulations have become flat, the pannus the result of the granulations, has not disappeared. According to the amount of stimulation

the eye will bear, the instillations are made every day, every other day, or only once or twice a week. The mode of application is very simple; a small quantity of molasses is taken up on a probe and allowed to drop into the everted, lower, retrotarsal fold of the conjunctiva.—*St. Louis Cour. of Medicine.*

### Treatment of Phlyctenular Keratitis in Children.

TROUSSEAU, in the *Revue Gén. de Clin. et de Thér.*, reports that he obtains good results from the following: Vaseline, gr. 75; hydrarg. ox. flav. gr. 3 $\frac{1}{2}$ .

Once daily a bit of this ointment as large as a grain of wheat should be introduced into the eye. Three times daily compresses wet in a warm solution of boric acid should be placed upon the eyes for a quarter of an hour.

### Instillation of Nitrate of Silver in the Ear.

THE following case, reported by Dr. T. W. BENNET, in the *Lancet*, may be of interest, on account of the unpleasant results occurring in consequence of the instillation of a solution of nitrate of silver into the ear, since most of the textbooks on surgery speak of it generally as being almost painless in its action:

Mr. F. consulted me in January, 1887. The right ear was the seat of acute inflammation, which rapidly recovered. The left ear was the seat of perforation of two years' duration. The posterior inferior segment had disappeared, together with about half of the long process of the malleus. The membrane of the tympanic cavity was swollen and granular in appearance. I advised the use of solutions of zinc sulphate. Under this local treatment the hearing steadily improved, but the discharge did not stop. After trying other methods of treatment, I dropped into the ear a few drops of a warm twenty

per cent. solution of nitrate of silver. Immediately there was intense pain. I lost no time in syringing the ear, but without relieving the pain. The patient suffered extremely for three days, in spite of instillations of cocaine, the insertion of ear cones of gelatin containing morphine, and the hypodermic injection of morphine on the second night. On the third day there was absolute deafness, even when the tuning-fork was applied to the skull. The patient complained also of frequent transient attacks of giddiness. In consequence I advised the use of leeches to the ear, and prescribed a mixture containing iodide of potassium. The pain now ceased, but for several days the hearing was almost *nil*, and the discharge continued as before. Two months later the patient consulted me again, and under the use of powdered alum the discharge rapidly stopped, the hearing improving considerably, the hearing distance for the watch becoming  $\frac{3}{8}$  in.—*Ther. Gazette.*

#### The Corpora Striata and the Thalami Optici—Their First Structure.

DR. VITTORIO MARCHI (*Alienist and Neurologist*) concludes an extended study on this subject thus :

1. The nervous cells met with in the corpora striata are of two sorts, great and medium ; they are furnished with numerous prolongations, among which one only is distinguished by special characters, and this one is the nervous prolongation ; all the others correspond to the so-called protoplasmic prolongations.

2. The nervous prolongations behave in a double way ; some of them, at a short distance from their origin, lose their individuality, subdividing in totality and giving place to a very fine nervous net-work (cells of the second type) ; the others go directly to consti-

tute the cylinder axis of a fiber, but not without giving forth some slender branches, which are lost in the nervous net-work before mentioned (cells of the first type).

3. In the two nuclei of the corpus striatum, both types of cells are observed, with prevalence of those of the second type ; this predominance is, however, less pronounced in the lenticular nucleus.

4. In the thalami optici we do not find isolated groups of cells ; they are scattered irregularly in the whole mass of the gray substance ; they are prevalently large, and many are very similar to those of the anterior cornua of the medulla spinalis ; they present as in the corpora striata, the unique nervous prolongation and many protoplasmic prolongations.

5. Cells of the first type predominate in the optic thalami, thus differing from the corpora striata.

6. In correspondence with the twofold behavior of the nervous prolongation, the fibres join with the cells of the corpora striata and the optic thalami, either by directly coalescing with the nervous prolongation of cells of the first type ; or indirectly losing themselves in the thick netting formed by the nervous prolongations of cells of the second type, together with the lateral branches emanating from the prolongation of the cells of the first type.

7. The internal capsule contains fibres which unite directly the cerebral peduncles to the corona radiata ; others departing from the peduncle, halt in the ganglia of the base ; others again go from these to the corona radiata ; finally some, sprung from the cells contained in the thickness of the capsule itself, take an ascending or a descending course.

8. As regards the protoplasmic pro-



longations, denying most precisely that they take part in the formation of the nervous net-work, I am inclined, from my own observations, to hold that by their fine ramifications they are in relation with the vessels, and with the cells of the neuroglia.

9. The neuroglia is essentially represented by cells having numerous long, fine prolongations, ramifying many times; they proceed by means of various expansions to be inserted on the walls of the vessels.

10. Lastly, the ependyma, which covers the corpora striata and the internal faces of the thalami, is constituted by cylindrical cells, the slenderest part of which is continuous with a prolongation which gives place to very many ramifications, most of which are inserted into the vessels.—*American Lancet*.

## DISEASES OF THE SKIN.

### Pruritus Hiemalis.

In some clinical notes on pruritus, Dr. L. D. BULKLEY devotes a few words to the consideration of this distressing affection. (*Journal of Cutaneous and Genito-Urinary Diseases*.) This affection may appear at any time from October to January and disappear about April or May. The localities chiefly attacked are the extensor surfaces of the arms and legs, most often the thighs. The itching is at times quite marked and distressing. Dr. Bulkley is inclined to attribute this affection to something beyond a mere excitation of the skin nerves by cold. The action of the cold is to throw extra work on internal organs, cause imperfect action of the secretory glands of the skin, and thus occasion pruritus in a secondary manner. A number of patients suffer from rheumatic troubles or other evidences of lowered nerve vitality. Internal tonic

and antacid treatment is of use in preventing a relapse. Temporary relief of the local symptoms can generally be secured by the use of the ordinary method of treatment applicable to pruritus.—*St. Louis Medical and Surgical Journal*.

### Scabies.

℞. SULPHUR. sublim, 3 j; balsam. peru., 3 iv; butyri petrolii, 3 iss. M. Sig.—Rub over entire body twice a day.

The above, besides being very effective, is pleasant to the smell.

### Hair Tonic.

PROFESSOR BRINTON has, among his formulæ, this one for a hair tonic: ℞. Quininæ sulph., gr. lxxx; alcohol, 3 iv; tinct. capsici; tinct. cantharidis; sp. ammon. arom., āā 3 ss; glyc., 3 iv; aquæ, q. s. ad. Oj. Sig.—Apply.

### Chapped Hands.

FOR chapped hands, the *Druggists' Bulletin* suggests the following cream as far superior to many advertised products: ℞. Quince seed, 3 ij; rose water, Oiv; glycerine, Oij; tincture of benzoin, f 3 ij. Macerate the quince seed in the rose water for twenty-four hours; strain, and add the glycerine and tincture of benzoin.

### A Salve for Chilblain.

DR. LASSAR recommends the following salve as very efficacious in chilblain: ℞. Acid. phen., gr. xvss; ung. plumbi; lanolini., āā 3 v; ol. amygd., 3 iiss; ol. lavan., gtt. xx.—*Jour. de Méd. de Paris*.

### Eczema.

THE following lotion will be found serviceable in the early stages of eczema, especially of children: ℞. Ol. lini; aq. calcis, āā 3 iv. M. Sig.—Lotion.

## FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

### The Proper Splint for Gunshot Fracture of the Lower Limbs in Connection with Transportation.

R. F. TOBIN, F.R.C.S.I., in a paper on this subject in the *Lancet*, after stating that his remarks will apply to gunshot fractures of the hip and upper third of the thigh, says that an appliance, which will give rest to a fracture in the locality indicated, must fix not only the injured limb, but also its fellow, and the trunk as far as the thorax. Liston's and Bryant's splints are satisfactory when the patient is on his bed. But no splint so far as known, on which the limb does not rest by its own weight, gives satisfactory support when for any purpose the patient has to be lifted. The foregoing conditions are fulfilled by the splints of Thomas, of Liverpool, and Fagan, of Belfast. The objection to using these on the field is due in the former splint to the difficulty in fitting it, and in the latter to its costliness, it is hoped that these obstacles, which are not insurmountable, will be overcome. In the meantime, the author purposes the following dressing, which he says can be rapidly applied, and forms the most valuable dressing for gunshot fracture of the lower limbs in connection with transportation.

Having treated and dressed the wound after the fashion in vogue for wounds in general, the canvas of a stretcher with removable poles is spread upon the ground, and is cut transversely into two about its centre. The following materials are also made ready: 1. Two pairs of trousers, viz., that of the wounded man and any other obtainable of about the same size; 2, a few strips of blanketing, or a few large towels or other material, of a size to go as a binder

round the waist or hips in three or four layers; 3, one stone and a half of plaster-of-Paris; 4, three gallons of water; 5, a bucket or other receptacle in which to mix the plaster and water; 6, three yards of calico torn into three many-tailed bandages; and 7, a roll of cotton wadding. The plaster is mixed with about an equal quantity by measure of water, and into the creamy fluid so formed, the two pairs of trousers and the material that is to go round the waist and hips as a binder are immersed. When these have been fully imbued with the fluid, the trousers are spread out one over the other on the canvas of the stretcher, the forks of the combined trousers being made to lie a few inches away from and above the division in the canvas, and a many-tailed bandage placed, ready to be tied, under each leg. The material which is to form the abdominal binder is spread, with a many-tailed bandage underlying it, transversely under the waist of the trousers; and over all a thick layer of wadding is laid. On to the splint thus formed the patient is lowered in such a position that the margin of the fork of the trousers corresponds to a point two inches and a half above the arms, and that his legs being immediately over each leg of the trousers, are about six inches apart at the knees. The fractured limb is held in good position by the surgeon, while two assistants, by tying together the tails of the bandage, bring the splint into close apposition with the posterior surface of the patient's legs, buttocks and loins, and make the binder encircle the hips and abdomen. As soon as the plaster has set, the poles are passed through the folds in the canvas and the patient is removed. The whole dressing not including the treatment of the wound, and the setting of the plaster can be applied in less than a quarter of

an hour by a surgeon and two skilled orderlies. During the subsequent treatment of the case the canvas of the stretcher is never removed from underneath the patient. When an action of his bowels is about to occur, the poles are put into position, the halves of the canvas are separated, the patient is raised, and the bed pan passed underneath him. He is lifted in a similar way when his wound requires to be dressed. The situation of this may require that windows be made in the splint and canvas; and in cases where it is apparent that this will have to be done, hoop-iron, if obtainable, should be placed between the trousers, when first put in position, so as to strengthen the splint under the injured limb.

#### **Surgical Treatment of Depressed Compound Fractures of the Skull.**

MR. LAWFORD KNAGGS reports a case (fatal) of compound depressed fracture of the parietal bone, and calls special attention to the following points in the treatment of these cases:

1. The value of the large flap over the crucial incision.
2. The advantages to be derived from a free removal of bone.
3. The desirability of thorough exploration, even by means of a flap of dura mater, in cases where that membrane is injured.
4. The great importance of thorough cleansing with powerful antiseptics, even of the cerebral substance itself in suitable cases, and of endeavoring to secure complete asepsis.—*Lancet*.

#### **Lateral Dislocation of the Axis Without Spinal Symptoms.**

FOLLOWING a fall on the head, the subject, a soldier, complained of persistent stiffness of the neck. After a searching examination, M. ANNEQUIN made

the diagnosis of left lateral subluxation of the axis, notwithstanding the absence of spinal phenomena. The case is rare, but possible, and M. Annequin mentions several examples. Though these cases have not always been verified by post-mortem examination, still, in this instance, the diagnosis has been sustained by the faculty at Lyons. The negative results of this injury are remarkable, the only apparent sign being a slight deformity and the presence of an anomalous prominence in the pharynx and at the nape of the neck.—*Gazette des Hôpitaux*.

#### **Non-union of Fractured Bones.**

IN a discussion of Dr. Pilcher's paper, in the *N. Y. Medical Journal*, the following statements were made:

The President said that the occasional interposition of periosteum between the fragments of a fractured patella had been pointed out long before Macewen's paper was published. In the specimen presented by the reader the original separation of the periosteum could not be alleged as the cause of non-union, as the periosteum was so closely attached to the overlying soft parts that it could not fall in between the fragments, as the fibro-periosteal covering of the patella sometimes did.

Dr. C. K. Braddon said that he believed statistics had proved that non-union was more frequent in the lower end of the humerus than elsewhere, that it had been attributed to the distribution of the nutrient arteries, and to the disturbance of the parts in the movements of respiration, which latter would equally apply to ribs, clavicle, and scapula, where union rarely failed. He cited a case where a gentleman had fractured the lower end of the humerus from the application of very insignificant force. There had been constitutional vice in the case, but the site of fracture had

been the seat of slight obscure pain for some months previous to the accident. An unfavorable prognosis as regarded union had been given, and the bones had never united; every means short of operative interference had been used; absolute immobilization, followed by needling and the application of the constant and interrupted currents; no more severe measures had been instituted, because the patient had been suffering from advanced cardiac disease. The arm, when incased in a removable metal splint, was as useful as before. In his experience a syphilitic history had been obtained in most of these cases, and antisymphilitic treatment had been beneficial. One cause of non union might be the long continued immobilization of the limb with plaster of Paris, especially in the case of the thigh, when it was fixed for three or four months; in the latter instance the limb sometimes atrophied, and the skin exfoliated. He would under these circumstances advise the daily removal of the apparatus and the use of massage, and would advise the patient to walk about; use of the limb sometimes assisted union. He had never obtained any good results from Thomas's method of percussion. The speaker did not wish to be understood as opposing the practice of immobilizing the limb in cases of fracture, but only as objecting to too prolonged fixation. He thought that it might even be better to leave detached fragments of bone at the seat of fracture *in situ*, since consolidation might still take place if the wound was thoroughly aseptic. Macewen's investigations into the process of osteogenesis went to prove that the periosteum only furnished the blood supply, that the source of bone growth was in the bone cells themselves, and that small pieces of completely detached bone in a perfectly aseptic wound form-

ed centres for reproduction, and were not to be regarded as foreign bodies.

#### Statistics of Surgical Tuberculosis.

SCHMALFUSS, bearing in mind the remark of Volkmann that tuberculosis in children and adults varies in regard to its curability and danger to life with the localization of the tuberculous foci in the different organs, regions of the body and tissues, has collated the operations for the past ten years in Maas's clinic in Würzburg. The list does not include the polyclinic cases.

During the last ten years from which the statistics are taken, Maas treated 1287 cases of tuberculosis, or 14.5 per cent. of the whole number of patients; 748 were males and 539 females; 58 had multiple tuberculosis.

I.—*Tuberculosis of bones and joints.*—978 cases.

1. Knee-joint, 227 cases=18 per cent. of the whole number, and 23 per cent. of cases of bone tuberculosis. 33 per cent. in children under 16 years of age. Cured and improved 69 per cent.; died 14 per cent., of which 5 per cent. were children. Resection was performed in 27 cases, amputation in 49, 6 of these after previous resection.

2. Ankle joint and foot bones, 187 cases=14.5 per cent. of all cases of tuberculosis, and 19 per cent. of cases of bone tuberculosis. Of children under 16 years old there were 38 per cent. Cured and improved 79 per cent.; died 5 per cent. Resection in 46 cases, amputation in 16, 6 of which were after previous resection.

3. Hip joint, 160 cases=12 per cent. of all tuberculous cases, and 16 per cent. of cases of bone tuberculosis; under 16 years old 68 per cent. Cured and improved 60 per cent.; died 18.4 per cent. 24 cases in children were resected; 1 exarticulation was performed.



4. Elbow joint, 86 cases=7 per cent. of all tuberculous cases, and 9 per cent. of cases of bone tuberculosis; children under 16 years 36 per cent. Cured and improved 62 per cent.; died 11 per cent. In 8 cases the arm was amputated, and resection done in 28 cases.

5. Bones of the hand, 76 cases=6 per cent. of cases, and 8 per cent. of cases of bone tuberculosis; 26 per cent. in childhood, the cases of spina ventosa being eliminated. Cured and improved 68 per cent.; died 11 per cent. Resection was done in 11 cases, and amputation in 10.

6. Vertebral column, 74 cases=5.7 per cent. of all cases, and 7.5 per cent. of cases of bone tuberculosis; 43 per cent. in childhood. Cured and improved 58 per cent.; died 17.6 per cent.

7. Tibia, 44 cases=3 per cent. of cases, and 4 per cent. of cases of bone tuberculosis; 43 per cent. in childhood. Cured and improved 7.95 per cent.; died 4.5 per cent.

8. Skull and bones of face, 40 cases=3 per cent. of cases, and 4 per cent. of cases of bone tuberculosis; 37.5 per cent. in childhood. Cured and improved 80 per cent.; died 5 per cent.

9. Pelvic bones and sacrum, 35 cases=2.7 per cent. of all cases, and 3.6 per cent. of bone tuberculosis; 11 per cent. in children. Cured and improved 23 per cent.; died 46 per cent.

10. Sternum and ribs, 35 cases=2.7 per cent. of all cases, and 3.6 per cent. of cases of bone tuberculosis; 12.5 per cent. in children. Cured and improved 63 per cent.; died 11 per cent.

There was no case of caries of the clavicle.

11. Femur, 19 cases=1.6 per cent. of all cases, and 1.9 of cases of bone tuberculosis; 37 per cent. of the cases in children. Cured and improved 74

per cent.; died 5 per cent. Amputation in one case.

12. Shoulder joint, 15 cases=1 per cent. of all cases, and 1.5 per cent. of tuberculosis of bone; 22 per cent. of cases in children. Cured and improved 87 per cent.

13. Ulna, 14 cases=1 per cent. of all tuberculous cases, and 1.4 per cent. of cases of bone tuberculosis; 29 per cent. of the cases in children. Cured and improved 100 per cent.

14. Humerus, 12 cases=almost 1 per cent. of all and of the cases of bone tuberculosis; 17 per cent. in children. All cured.

15. Radius, 7 cases=0.5 per cent. of all cases, and 0.7 per cent. of cases of bone tuberculosis; 1 per cent. in children. Cured and improved 86 per cent.; died 14 per cent.

16. Fibula, 5 cases=0.4 per cent. of all, and 0.5 per cent. of cases of bone tuberculosis; all in adults. Cured and improved 60 per cent.

17. Patella, 1 case=0.08 per cent. of all cases, and 0.1 per cent. of cases of bone tuberculosis. Cured.

II.—*Tuberculosis of Lymph Glands.*—In all 196 cases=15 per cent. of all cases of tuberculosis; 31 per cent. in children. Cured and improved 79.5 per cent.; died 4 per cent.

III.—*Tuberculosis of the Skin and Cellular Tissue.*—In all 77 cases=6 per cent. of all cases; 34 per cent. in children. Cured and improved 74 per cent.; died 3 per cent. Contrary to Volkmann's experience, in the clinic at Würzburg tuberculosis of the skin was more frequent in adults than in children.

IV.—*Tuberculosis of Accessible Mucous Membranes.*—In all 10 cases=0.8 per cent. of all cases; only 1 in childhood. Cured and improved 70 per cent.; died 20 per cent. There were two cases of tuberculosis of the tongue, 4 of tuber-

culous fistula ani, 1 tuberculous bur-sitis, 1 of tuberculous enteritis, and 1 of tuberculosis of the pharynx.

V.—*Urogenital Apparatus*.—In all 20 cases in males; 25 per cent. of these in boys. Cured and improved 65 per cent.; died 10 per cent. There were 18 cases of tuberculosis of the testicle, and 2 of tuberculosis of the kidney. Of the 18 with tuberculosis of the testicle 12 were castrated, 2 on both sides; of these 5 were children. The outcome of these cases is directly contrary to Volk-mann's dictum that castration is of no use in children.—*Centralbl. für Chi-urgie*.—*Medical Progress*.

#### Removal of Nearly the Entire Clavicle. Reproduction of the Bone.

DR. HULL presented a patient upon whom he had operated two months previously at the New York Hospital. The man had syphilitic necrosis of the left clavicle. There was a large fungous mass at the inner extremity of the clavicle, involving the articulation, which resembled sarcoma, but improved under antisiphilitic treatment, which was continued for two months. At the operation three-fourths of the bone was removed. It was now two months since the operation, and the wound was healed except for a small superficial ulcer, the contour of the shoulder was perfect, and the motions of the arm were satisfactory. The tissues over the site of the portion removed were still too much thickened and indurated to make any bony outline perceptible or palpable on examination; but, for the preservation of the out-line of the shoulder and the function of the arm, it was fair to assume that the bone was being actively reproduced. The arm had been kept quiet with adhesive plaster dressing for six weeks after the operation.

The operation had been a very simple

one, as the necrosed bone lay loose in the sheath of periosteum. An incision was made over the bone, the soft parts were reflected with a periosteal elevator, and the bone was lifted out and divided with a key hole saw. This was the second case in which the speaker had performed this operation. In the first he had removed the inner half of the clavicle for sarcoma, no effort being made to preserve the periosteum. There was a very slight deformity in this case, due to falling forward of the shoulder. A dense fibrous tissue took the place of the bone, and the muscular power of the arm and its movements were perfectly satisfactory.

Dr. Wyeth said that he had removed the inner three inches, the outer one inch, and the upper half of the middle segment of the clavicle in a boy aged fourteen, leaving only one inch of the bone in position. The bone was reproduced, and now, after six years, the function of the arm was perfect. The operation was performed for traumatic osteitis. The most interesting feature in the case was a fracture of the new bone that occurred during the healing process. The patient was simply kept in bed without any special apparatus being used.

Dr. Sands said that, according to his recollection, the elder Dr. Mott had removed the clavicle for osteo-sarcoma. There was the greatest possible difference, as regarded the difficulty of the operation, between removing simple necrosed bone and bone tumors. Surgeons had boasted of exsecting the entire upper jaw, but nothing could be easier if the bone was separated from the periosteum by necrosis. But when a tumor was present and the mass was very adherent, the procedure was difficult. The speaker had found great difficulty in removing a small portion of

the lower jaw for a tumor, and none at all in detaching more than one-half the jaw when necrosed. Since the periosteum was spared in the latter case, the bone was more likely to be reproduced.

—*N. Y. Medical Journal.*

#### The Treatment of Erectile Tumors by Means of Electrolysis.

AFTER having experimented with different methods which are advocated for the treatment of erectile and cirroid tumors (REDARD, *Archiv. di Patol. Inf.*), concludes that electrolysis presents advantages over all the others. The objections which have been alleged against the use of electricity for purposes of this kind are the imperfections or the expense of the electrical apparatus, the long and painful treatment which is necessitated, the scars, cicatrices, and prolonged suppuration which attend it. These objections are due to faulty instruments and improper modes of application, and if corrected electrolysis will furnish a rapid cure, without inconvenience. The method of treatment is one which is easily acquired. Thirty cases of sessile tumors have been treated by the author by this method with satisfactory result, the situation in most cases being upon the lips and face. The apparatus should consist of a good galvanic battery, a well graduated galvanometer, and gold or platinum needles half a millimetre in diameter and eight or ten centimetres in length. The patient should be perfectly immobile during the passage of the current, which lasts but a few minutes, and is not very painful. An anæsthetic is not usually required. Regarding the use of one or two needles in the tumor, most authors following Ciniselli's method use two at short distances from each other; some, however, use only the positive pole in the tumor, the negative being fixed at

some point in the body. Althaus uses the negative pole alone upon the tumor. It must be remembered in this connection that at the positive pole electrolysis takes place and cauterization at the negative, which is followed by scarring. The author recommends, therefore, that the positive pole be introduced into the tumor, from the centre towards the periphery, or rather four positive needles should be used at the same sitting, the negative pole, for which a flat electrode may be used, being placed as far away as possible upon the tumor, or even upon the upper part of the arm. The duration of the sitting should be two to four minutes, and then the needles should be introduced into new points and the current passed for an equal length of time. The needles should not be removed until the current has been cut off, and only a few drops of blood will follow their removal. The treatment should be repeated every six or eight days until the tumor disappears. The current should not be of great intensity,—twenty-five to thirty amperes will suffice. The needles must be kept in an aseptic condition, and the pain of the operation may be avoided by first chilling the parts with ether spray. Rarely will it be necessary to use a needle for the negative pole.—*Archives Pediatrics.*

#### Selected Cases of Sarcoma of Bone Affecting the Lower Extremities.

DR. FREDERIC S. DENNIS (*Medical News*):

Sarcoma has been classified by Virchow in a way that is generally accepted by surgeons and pathologists. It is the best classification in use, and with but slight modification I shall employ it upon the present occasion. Sarcoma may be divided:

1st. *According to the character of the*

cells: 1. Spindle-cell sarcoma (like ordinary connective-tissue cells). 2. Round-cell sarcoma (similar in form to leucocytes). 3. Giant-cell sarcoma (such as are seen in medulla or bone). 4. Mixed-cell sarcoma (composed of some or all of the above variety of cells). And

2d. *According to the character of the connective substance.*

1. Connective tissue. 2. Gelatinous tissue. 3. Fatty tissue. 4. Cartilaginous tissue. 5. Osseous tissue.

Hence a sarcoma is named according to the variety of connective tissue substance of which it is composed, together with ordinary connective tissue cells.

The treatment of sarcoma of the long bones is simple, because there is but one operation, and that is amputation.

The points of differential diagnosis between sarcoma of bone on the one hand, and chronic inflammation of bone on the other hand, are as follows:

*Sarcoma of Bone. Chronic Inflammation of Bone.*

- |   |  |
|---|--|
| 1. Attacks extremities unless subperiosteal.  | 1. Attacks the shaft.  |
| 2. Forms soft swelling in comparison with bone.   | 2. Forms hard, smooth sclerosis of bone.   |
| 3. Rapid in its course.   | 3. Slow in its course.   |
| 4. Distended veins over the surface of tumor.   | 4. No distended veins over surface as in sarcoma.                                      |
| 5. Does not invade joint.   | 5. Usually invades the neighboring joint.  |
| 6. Circumscribed areas of fluctuation over swelling where cysts filled with bloody serum are found. | 6. There may be diffuse area of fluctuation, but pus is found instead of bloody serum. |

Dr. Dennis narrates in full the histories of eight cases, with remarks suggested therefrom. He concludes as follows:

1. The importance of early recognizing the disease, and the necessity of complete removal of the limb by amputation without delay.

2. The importance of carefully watching the subsequent history of patients upon whom an operation has been performed for the removal of sarcoma.

3. The publication of all cases, whether the result of the amputation was favorable or otherwise, in order to enable surgeons to collect reliable and trustworthy data for future study.

4. The importance of a microscopical examination of every sarcoma. Surgeons are of one opinion upon this point, that a microscopical examination is a *sine qua non* to insure the tabulation of a case for purposes of study.

5. The importance of a radical operation in the cases of malignant sarcomata affecting the long bones of the extremities, and the condemnation of partial enucleations and the use of caustics and plasters.

6. The importance of encouragement to patients suffering from malignant disease of the long bones, on the ground that early and radical operations, even in the most malignant cases, may result in perfect cure.

**How to Make a Post-Mortem.**

DR. E. J. KEMPF (*American Practitioner and News*):

1. *General Aphorisms.*—Make the post-mortem as soon as possible after death, as putrefactive changes modify the appearances of pathological as well as of normal organs.

2. The operator needs a long scalpel, a pair of scissors, a pruning-shears-like scissors, a pair of forceps, a large needle, twine, and a large sponge. To open the head and the spinal column a saw, a chisel, and a hammer are also required. Several newspapers, a piece of rubber cloth, several pieces of old cloth, a slop-pail, and a pitcher of water should be at hand.

3. Have everything ready before you begin. Do the operation slowly and carefully. Be careful not to cut yourself; but if you do, wash the cut well immediately and paint with collodion.



4. In making a written report, describe as well as you can what you see, but never what you may think.

5. If you are going to make a post-mortem examination of more than one part of the body, proceed as follows: brain, spinal cord, thorax, abdomen, and other parts.

6. *Brain*.—Put subject on his back on a table; head on a block. Make an incision over the top or crown of the head from ear to ear.

7. Cut from within outward so as not to injure the hair. Loosen the scalp, both the front and the back part by the hand and the scapel, and turn the front forward, and the back backward.

8. With a saw saw off the top of the skull in a diagonal way. ◇

It will fit better after the operation has been made than a circular cut.

9. Lift off the top skull piece and examine the dura closely. Then remove the dura and lay it back "without."

10. Cut optic commissure and different roots of nerves and the spinal cord as far as possible.

11. Remove the brain; place it up side down in the skull-cap. Remove the arachnoid membrane; examine the base, whether circle of Willis is all right, and what is the condition of the blood vessels in the fissures.

12. Turn the brain over in a vessel; remove the membranes; examine the convolutions; separate cerebellum from cerebrum.

13. Open third ventricle by cutting antero-posteriorly down one-eighth inch from median fissure. Examine lateral ventricles and fifth ventricle. Any blood?

14. Make antero-posterior cut through one hemisphere of the brain, and transverse cut through the other hemisphere, to examine the substance of the brain for softening.

15. Examine fourth ventricle and arbor vitæ of cerebellum.

16. Put back the brain, cover with the dura, put back the skull-cap, and sew up the scalp nicely.

17. If the brain is to be kept for future examination, fill the cavity of the cranium with a sand-bag.

18. *Spinal Cord*.—Body on a table face downward, with a block under the thorax.

19. Make an incision along the ridge formed by the spinous processes of the vertebræ from the occiput to the sacrum. Dissect up the skin, fascia, and muscles, filling the vertebral grooves, leaving the laminæ bare. Saw nearly through the laminæ in a line with the roots of the transverse processes, and on each side of the spinal processes.

20. Lift out the arches with the chisel; cut the nerve roots of the cord; cut it near the medulla oblongata and near the sacrum. Remove it; examine for injury, or blood, or serum, or pus beneath membranes, or softening of the cord. If necessary keep a piece for microscopical examination.

21. Replace the cord; replace the spinous processes. Sew up the skin nicely.

22. *Chest*.—Body on the back on a table. May or may not have a block under the small of the back.

23. Make an incision from commencement of sternum to some point in the linea alba; cut through the cartilages on each side of the sternum four inches apart, with the pruning-shears-like scissors. Lift the sternum out or turn to one side. First note condition of things before removing any organs.

24. Take out the lungs and the heart together, by cutting through the arch of the aorta, and other arteries and veins, and the right and the left bronchus, and all other arteries and veins, and the

right and the left bronchus, and all other attachments.

25. Heart. Examine the pericardium; cut open the cavities of the heart; examine valves and walls of the heart.

26. Lungs. Examine the pleuræ; inflate lungs to note perforation. Examine the substance of the lung.

27. Aneurisms, tumors, etc., within the chest need attention if present. Injuries should be carefully examined.

28. Replace organs; replace sternum; sew up nicely.

29. *Abdomen*.—Make an incision through skin and linea alba from xiphoid cartilage of sternum to symphysis pubis; open; if not enough opening, make transverse incision across the abdomen on a median point.

30. Examine first for fluids, serum, blood, or pus in the abdominal cavity. Does peritoneum show thickening or other inflammatory signs.

31. Examine and remove the spleen first, its size, shape, color, and density, and the appearance of the capsule. An incision parallel to its flat surface will expose the follicles, trabeculæ, and pulp.

32. Examine omentum and small and large intestines in rotation, and note any injury or pathological peculiarities they may present inside or outside. The duodenum should be examined *in situ* by an incision made by the scissors on the outer border in cases of jaundice causing death.

33. The stomach and the pancreas should be removed next, and the kidneys, ureters, and bladder viewed *in situ*, if necessary they also may be removed.

34. In females the next step is, remove the genital organs and examine.

35. The liver should now be removed and carefully examined by inspection, and by slicing it.

36. Note any other points which certain cases may indicate.

37. Then replace everything you do not have to keep for future examination, chemical, microscopical, or macroscopical, and sew up nicely.

38. The utmost care must be taken not to let the fluids in the abdominal cavity escape and soil the floor, etc.

39. *Other parts of the body*, limbs, face, neck, back, and external genitals should be examined in the same manner as we undertake dissections.

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#### Professor von Bergmann's Method of Antiseptic Treatment.

DR. F. BRAMANN, first assistant surgeon to the Surgical Clinic of the University of Berlin, reports on the antiseptic treatment adopted by Professor von Bergmann. (*Archiv. für klinische Chirurgie*, and *Centralblatt für die gesammte Therapie*.) Sublimate gauze is prepared by exposing gauze during one-quarter or half an hour to a continuous stream of water-vapor of 100° C. (212° F.), after which it is rapidly dried and impregnated with a solution of sublimate. Plain sterilized gauze is but rarely employed, and only in minor operations. The cotton-wool used for dressing is not impregnated, but merely sterilized by steam in the above manner. The water-proof sheets, linen sheets, napkins, towels, and sponges, are disinfected in the same way. Small rolled up pieces of sublimate gauze are generally substituted for sponges. The silk for sutures is sterilized; catgut is immersed for from ten to fourteen days in an alcoholic solution of sublimate (4:1000), and afterward kept in a solution of 1:800 of sublimate in alcohol and 200 parts of distilled water, in which the catgut will not become brittle. The wound during the operation is irrigated with sublimate water (1:2000); but in operations in the abdominal or pleural cavity the wound is merely wiped with

pieces of sublimate gauze. In the mouth, rectum, and in the bladder, instead of sublimate, salicylic acid (1:1000), boric acid (2:100), and at the termination of the operation iodoform ether (1:10), are employed. The instruments are left half an hour before use in a solution of three per cent. of carbolic acid. Hæmostasis is most carefully attended to, and the wound is not closed before the slightest trace of bleeding has disappeared, by which precaution the best results even without drainage are achieved; but there are exceptional cases in which the hæmostasis cannot be perfect and the wound cannot be kept free of serious oozing, or in which an aseptic progress is doubtful. In such cases, the wound is irrigated with a 1:1000 sublimate solution, rinsed with iodoform ether, and loosely tamponned with a strip of iodoform gauze, the end of which is brought out in the corner of the wound, and is dressed over the tampon with sublimate gauze and cotton-wool, according to antiseptic rules. Should the dressing become saturated with the discharge of the wound, the external layers are to be renewed, but the iodoform gauze is left for two days, after which it can be easily and safely removed. The wound is now accurately closed by sutures, and union by first intention will take place even in cases in which the tampon had been left, owing to special reasons, for four to six days.—*London Medical Record*.

#### Inflammation Masking Cancer.

DR. ORECCHIA has recently called attention (*Gazzetta degli Ospitali*) to the frequent combination of inflammation with cancer in the same part, the graver disease being sometimes so obscured in this way as to be overlooked for a considerable time. He reports six cases in which this occurred. In one of these

cancer of the larynx was supposed to be nothing more than perichondritis; in two cases malignant disease of the jaw was mistaken for osteitis; in another, periprostitis for some time masked a rectal cancer, parotitis concealed cancer or sarcoma of the parotid; and simple inflammation of the lip, an epithelioma. The possibility of malignant disease underlying what appears to be a simple inflammatory process should never be forgotten when the age and appearance of the patient, and the part affected, are such as to make the existence of carcinoma probable. Dr. Orecchia believes that in these cases the cancer is the primary disease, which, owing to the slightness of the symptoms, remains unnoticed till the supervention of inflammation calls attention to the part. In the stroma of all the tumors referred to, Dr. Orecchia found much extravasated blood, with abundance of leucocytes, of which there were also a great number in the neighboring tissues.—*British Medical Journal*.

#### Occlusion of Large Arteries by Flat Ligatures.

THE London correspondent of the *Philadelphia Medical Times* mentions three cases reported to the Clinical Society of London, going to show that it is unnecessary, and inadvisable to rupture the coats of a large artery when applying a ligature in its continuity. In one case the superficial femoral artery was thus occluded for popliteal aneurism; kangaroo-tendon was used, and drawn tight round the artery in a clove-hitch without rupturing the coats; pulsation in the tumor was arrested immediately and did not return. The patient, a woman, æt. 45, made an uninterrupted and perfect recovery, but was kept in bed for seventy-two days. In the second case reported to the meeting,

secondary hemorrhage had occurred after amputation at the hip-joint, for sarcoma of the femur. As it was thought that it would have been fatal to the patient to have opened up the flaps to search for the bleeding vessels, and as pressure on the common femoral controlled the hemorrhage, a clove-hitch was put around that artery. No return of hemorrhage took place, and the patient made a good recovery. Mr. Pitts, who performed the operation, justified his departure from established practice by asserting that the old fear of hemorrhage at the seat of ligature was not felt by a surgeon who placed a flat ligature on the vessels and did not divide the coats, but merely closed the lumen of the vessel.

#### VENEREAL DISEASES.

##### The Treatment of Syphilis with Oxide of Mercury.

ROSENTHAL uses the following as an injection in syphilis:  $\mathcal{R}$ . Hydrargyr. oxid. flav., gr. viii.; ol. olivar., f 3 v.

With this preparation an injection was made every week. A Lewin's syringe was used and a long needle. The syringe in question holds about thirty-two minims. Usually half this quantity was injected, but in severe cases three-quarters and sometimes even a whole syringe-ful was given, so that the dose of oxide of mercury ranged from  $\frac{1}{2}$  grain to a little over 1 grain. From three to five injections in all were made in each case. The spot selected for the injection was the gluteal region. The injections were always intra-muscular, and carried out with strict antiseptic precautions. After the injection gentle massage was always used. In no case was the formation of an abscess observed. There was, however, considerable infiltration of the surrounding tissues, accompanied by

some swelling. This was usually noted on the second day, but disappeared soon after. The pain caused by the injections was far less than that which Rosenthal had observed to follow the use of insoluble salts of mercury. This form of administering mercury is spoken of most highly by various authorities, and may be recommended as one of the safest if not the best method for mercurial treatment.—*Therapeutic Gazette*.

##### Manœuvres for Discovering the Posterior Opening in Traumatic Stricture.

IN the Société de Chirurgie, Paris, M. TILLAUX related the following method used by him in gaining entrance to an impenetrable traumatic stricture.

A man fell astraddle of some hard substance, from which there resulted extravasation of urine, fistula and stricture. External urethrotomy failing to disclose the posterior opening of the urethral canal, supra-pubic cystotomy was resorted to, after which a finger introduced into the bladder directed a metallic sound into the urethra. This was then made to project into the perineum and acted as a guide for the operation of external urethrotomy.

M. Despres made the suggestion that a certain method of finding the canal, in operating externally without a guide, was to cut transversely. M. Schwartz related that in such a case, he had pushed a trochar directly through the prostate to the bladder, using a finger in the rectum as a guide. He afterwards passed a sound through the artificial canal. The patient recovered. M. Le Dentu had used for some time the method of Demarguary, which consisted in searching for the tip of the prostate behind the stricture; there the membranous portion is found, in which an incision from behind forwards to the stricture is made.



M. Le Fort had used with success, in his search for the posterior opening, the following method: The patient was given iodide of potassium, and after some minutes, when the salt had passed into the urine, there was placed at the point where the fistula was thought to be located, nitrate of lead. The moment urine exuded, a spot of iodide of lead marked exactly the site of the opening. He had been enabled to find, easily, the orifice of a vesico-vaginal fistula, which he had been unable to discover without that means.—*Weekly Medical Review*.

#### Schinus Molle in Blennorrhagia.

DR. E. BERTHERAND, of Algiers, records twenty-seven cases of acute blennorrhagia, of from five to twenty days' duration, and seven old cases, of from two to eight months, in which other measures had been used without success, and in which schinus molle was used successfully. The pods of the plant, after being stripped of the epicarp, are powdered as fine as possible, and the powder mixed with a very small quantity of syrup of gum. This is a very simple way of preparing the drug, and masks its taste and odor, which are very much like that of pepper. The pills are easily taken with a swallow of water, and are easily borne by the stomach, causing no vomiting, no diarrhoea, no thirst, and no ardor urinæ; on the contrary, most patients say that the drug increases the appetite. These effects make schinus molle very much better than cubeba. Bertherand's table shows that for the acute cases the average time for cure was 11.8 days; average number of pills 26-27 a day for chronic cases; average time 34.7 days. The pills were given, half in the morning, and half in the evening. [Bertherand gives no indication of the contents, by weight, of a pill.]—*Nouveaux Remedes*.

#### The Treatment of Spermatorrhœa with Electricity.

The treatment of spermatorrhœa with electricity is largely adopted in Europe, and generally considered to be most efficacious. Opinion is, however, divided as to whether the galvanic or faradic current is most valuable, and whether the form of treatment should differ in different types of the disease. Richard Wagner, of Blankenburg, says the *Medicinisch-Chirurgische Rundschau* tells of ten cases of spermatorrhœa in which he has used electricity. Three of these were not at all improved by the treatment. He is of the opinion that the faradic current is of special value in cases where the spermatorrhœa has resulted from sexual excesses, especially onanism, and when there exists a general excitable state of weakness. In such cases Wagner considers a local application of the current to be contraindicated, as it is not a question of treating local irritation so much as general over-excitability of the whole nervous system.

In cases where inflammation of the prostates or ejaculatory glands exists,—viz., from gonorrhœal origin,—a local application of the current is the only means by which satisfactory results can be obtained.

The anode (+) should be placed on the lumbar vertebræ, the cathode (—) at the base of the organ, at the symphysis or perineum.

The electric treatment should in all cases be an accompanying one, as without constitutional treatment but little improvement can be looked for.—*Therapeutic Gazette*.

#### Vesical Tuberculosis.

M. GUYON, of Paris, states that tuberculosis of the bladder may be recognized quite early; but its treatment by modifying the urine and by intravesical

injections has given rise to very little good. General treatment has always given better satisfaction. When, however, pains arise that are such as to render life unendurable, an operation becomes necessary. M. Guyon has operated in six cases, performing the hypogastric operation. In four cases the pains were diminished to a considerable degree. In the two others a careful curetting of the bladder was made and, a few weeks after, there was a complete disappearance of tubercle bacilli from the urine, they having existed in large numbers previously.—*St. Louis Med. and Surg. Journal.*

#### DISEASES OF THE EYE AND EAR.

##### The Crescent or Conus of the Optic Papilla and Astigmatic Contraction.

MARTIN begins with the following proposition: The papillary crescent, in the great majority of cases and perhaps in all, is situated at the extremity of a partial contraction of the ciliary muscle, and this contraction is the cause of its appearance and development. The reality of these astigmatic contractions is proved, and it is entirely physiological to admit that this duty devolves upon the radiating fibers, those directed in the meridians of the eye. In an eye possessing this deformity the retina and chorioid undergo a pulling and stretching, which are apt to rupture at the external margin of the optic nerve the deep chorioidal trusses which aid in the formation of the lamina cribrosa, and thus enlarge little by little the chorioidal ring. A similar result is sometimes produced by a pulling of the meridional fibers. Martin concludes that all eyes which possess a crescent are astigmatic, and that the direction of this lesion is always found in a plane parallel to one of the principal meridians, and most

frequently in that which presents the lowest refraction.—*N. Y. Med. Journal.*

##### Treatment of Serpiginous Ulcer of the Cornea.

DEHENNE gives the following *résumé* of the methods to be employed in treating serpiginous ulcer of the cornea: 1. Incise both lachrymal puncta and canaliculi, and irrigate the lachrymal passages freely with an antiseptic solution. 2. Carefully wash out the conjunctival *cul-de-sac* with an antiseptic solution (sublimite, 1 to 2,000). 3. Cauterize the entire surface of the ulceration by means of the thermocautery. 4. If there is pus in the anterior chamber, perforate the cornea with the thermo-cautery and evacuate it. 5. Instill into the eye four times a day five or six drops of a neutral solution of eserine sulphate (1 to 2000).—*N. Y. Medical Journal.*

##### The Determination of the Degree of Anisotropia by Retinoscopy.

ZIEMINSKI, in a somewhat lengthy paper on this subject, draws the following practical conclusions: 1. Retinoscopy is the name given to that method of objective optometry devised by Cuignet, and to which he gave the name of keratoscopy, and consists briefly in observation of the retinal shadows. 2. The importance of retinoscopy is incontestable in numerous cases where other methods of objective optometry do not give sufficiently exact results. 3. The most exact method of determining the degree of anisotropia by retinoscopy is that advocated by Parent, and consists in the employment of correcting lenses placed in front of the eye of the patient. To render it of practical advantage, we must be enabled to determine approximately by means of the rotation of a mirror the degree of anisotropia by simple observation of the

phenomena of retinoscopy, and only make use of certain correcting lenses for stating precisely the degree of the anomaly. In emmetropia and feeble ametropia the reflection of the illuminated part of the pupil is very bright; the shadow is very faint but well defined; the limit between the illuminated part and the part in shadow of the pupil appears as the segment or arc of a large circle; this limit is almost rectilinear in emmetropia and weak myopia. The part of the pupillary plane in shadow is comparatively much greater in extent than the light part. In moderate degrees of ametropia the reflection of the illuminated part of the pupil is less intense; the shadow is distinct and in the form of a crescent; the difference in extent of the two is not very great. In high degrees of ametropia a large part of the pupil is but slightly illuminated and ill defined; the shadow is very dark and in the shape of a narrow crescent, and during the movements of the mirror this shadow moves slowly across the pupil. 4. To determine the existence of astigmatism, the mirror must be rotated around its vertical or horizontal axis. If the shadow moves obliquely across the pupillary plane, an astigmatism with oblique principal meridians is present. If, on the contrary, the shadow moves horizontally or vertically, the mirror must be rotated round an oblique axis. 5. The plain mirror is preferable to the concave mirror. 6. Retinoscopy may generally be employed without the use of mydriatics.—*New York Medical Journal*.

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**On some Points in the Differential Diagnosis of Certain Ear Affections by Means of the Tuning Fork.**

MR. OREN D. POMEROY sums up his excellent article in the *N. Y. Medical Journal*, as follows:

*Summary.*—I conclude that the greatest amount of bone conduction proceeds from a normal ear closed, and that the principal diagnostic sign of labyrinthine disease appears in weakened bone conduction.

That the apparent increase of bone conduction in middle-ear disease will disappear when the test is made with the ear closed, when it will be found not to exceed that of the normal ear. In those cases called "mixed" the bone conduction will be found weakened when the test is made with the ear closed, although with both ears open the affected one may have better bone conduction than its fellow.

That, so far, it seems that the good or bad condition of the middle-ear mechanism has little influence on bone conduction.

That the occasional phenomenon of intermittent bone conduction can not be satisfactorily explained.

That cases of pure labyrinthine disease can not always be distinguished from those of middle-ear affections with secondary labyrinthine changes by the tuning-fork, and that the history of the cases must materially aid us in the distinction.

That the phenomenon of secondary labyrinthine changes in middle-ear diseases is easily explainable.

That there are numerous exceptions to the rules for finding the best points on the head for eliciting bone conduction.

That the bone conduction is rarely or never of less than its proper ratio to aerial conduction.

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**Tobacco Amblyopia.**

MR. ST. CLAIR BUXTON finds the following formula uniformly successful in curing tobacco amblyopia: Liq. hydrarg. perchlor. (B. P.), 3 ss; potassii iodidi, gr. xij; aquæ destil, ʒ j.

To the above he adds for simultaneous administration the following pill: Ext. nucis vomic., gr. ss.; ext. hyoscyami, gr. j.; ft. pil. no. i. The pill of this strength is given three times a day, and with the solution.—*Lancet*.

### DISEASES OF THE SKIN.

#### On the Use of Lanolin and Boracic Acid in Certain Diseases of the Skin in Children.

DR. STURGIS, in *Boston Medical and Surgical Journal*:

The author has been much pleased with the use of lanolin. The cases in which he has found it of most value are: facial eczema and eczema of the head, eczema squamosum, eczema rubrum and intertrigo, the mild form of seborrhœa often seen on the temples and about the chin, and chronic urticaria.

In eczema of the face and head he directs that the parts be cleaned of crust in the usual way. Should the exposed surface be weeping copiously, he prescribes boracic acid in very fine powder to be dusted on for first forty-eight hours, and not to be washed off.

The first effect of this is to increase the serous flow, but afterwards to diminish it. After forty-eight hours the boracic acid is to be applied twice daily, washing off each time the acid applied the time before.

As soon as the skin is in condition to bear an ointment, he uses boracic acid,  $\frac{3}{4}$  ii; lanolin.  $\frac{3}{4}$  i.

In eczema squamosum, in which there is considerable induration with scaly surface, he uses five to fifteen grains salicylic acid to the ounce of lanolin, according to degree of induration, rubbing it briskly into the skin.

In chronic urticaria he thinks we have in lanolin a reliable application to alleviate the itching, so difficult to control.

In eczema rubrum and intertrigo he

employs finely powdered boracic acid, dusted over the parts night and morning, and, when about the genitals, when napkins are changed—*Arch. Pediatrics*.

#### Treatment of Warts.

RÖSEN (*Münchener Medic. Wochenschr.*) has found the following procedure very serviceable in removing warts and callosities, etc.

The thickened epidermis is slightly moistened with an antiseptic solution (boracic or salicylic acid) and then covered with a fairly thick layer of pure crystallized salicylic acid. Over this is placed moist borated lint in four layers, a piece of gutta percha fabric and a bandage. In the cases of small warts and callosities, the dressing is allowed to remain for five days. On removal it will be found that the thickened tissue is somewhat shrunken and has separated from the subjacent parts, which are covered with perfectly normal skin, presenting no traces of injury or bleeding. The author has never seen any caustic effect from this application on the surrounding and subjacent tissues. If the callosity is of any considerable thickness, as is often seen on the sole of the foot, the dressing should be left in place for ten days, or renewed after five days. The great advantage of this application is that the effects of the salicylic acid are localized to the thickened area.—*Journal American Medical Asso.*

#### Trichorrhæxis Nodosa and Sycosis.

GIOVANNI, of Bologna, has been continuing his study of the hair in health and disease, and contributes a long and interesting paper upon the subject to the last number of the *Viertel Jahres-schrift f. Dermatologie und Syphilis*, for 1887. In trichorrhæxis nodosa he has found that most of the diseased hairs have a triangular contour on cross-



section, and only very few of them approach the normal oval shape. In those with triangular contour a more or less well marked depression showed itself upon one, two, or three sides, which caused the angles to stand out prominently. Even those hairs which approached an oval shape were marked with slight depressions that made the contour irregular. Among the normal hairs were found triangular ones, but not so frequently as in the parts affected with the disease in question. When the hairs split the division is always into two or three large fibers before the hair becomes fringed out. The splitting of the ends of the hair is a process identical with the splitting in trichorrhæxis nodosa, only that the process is limited to the ends of the hair. The medulla is affected in trichorrhæxis nodosa only secondarily, as is proved by the fact that it shows no alteration till the cortex is split.

In sycosis the affected hairs are always thicker than normal, and their contour is more or less notched, so that the hair presents irregular projections, which may number any where from two to six. In the middle of the hairs are various broad and irregular cavities filled with pigment, fat, and detritus. These are sometimes so numerous as to occupy nearly all the substance of the hair. It is possible that these thick hairs may be produced by the growing together of several hairs from the same follicle. These large hairs act as irritants.—*New York Medical Journal*.

#### On Divers Species of Itch.

DR. G. H. FOX (*Medical Record*):

In my opinion the affection is a cutaneous pruritus, mainly of internal origin, although the action of extreme cold and variation of temperature upon the skin is prone to serve as an exciting cause.

Since the etiology of pruritus depends far more upon dietetic than upon meteorological causes, the use of the name pruritus heimalis, as indicating a distinct affection, has always seemed to me to be unsound and uncalled for.

The reason that itching of the skin is apt to be more common in winter is due to several causes, of which improper diet is one of the most active, and cold one of the least important. Confinement in overheated and poorly ventilated rooms, and hugging a "glowing coal stove," especially after a hearty meal, is probably as conducive to pruritus as exposure to a blizzard.

The affection under consideration should not be attributed to uncleanness or lack of bathing in any case. Nor can it be regarded as peculiar to any one stratum of society. It affects both rich and poor, and shows no preference for such as bathe daily, or for those whose ablutions are few and far between.

These views being accepted, the treatment of the affection is placed upon a rational basis, and my experience has taught me that, in the treatment of pruritus occurring in winter, more can be accomplished by a modification of the diet than by all the remedies, internal and external of the whole pharmacopœia.

What is prairie itch? Is it contagious? What causes it? What will cure it? These questions are frequently asked, and variously answered by those who know all about it and by some who evidently do not.

In New York we have a number of pruriginous eruptions. Those which resemble prairie itch may be classed as follows:

1. Scabies.
2. Pediculosis.
3. Pruritus cutaneus.
4. Urticaria.
5. Eczema.

# **FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.**

## **Allen Surgical Pump.**

AMONG recent inventions in the surgical line, none have seemed to warrant more unqualified praise than the Allen Surgical Pump. Some months ago we

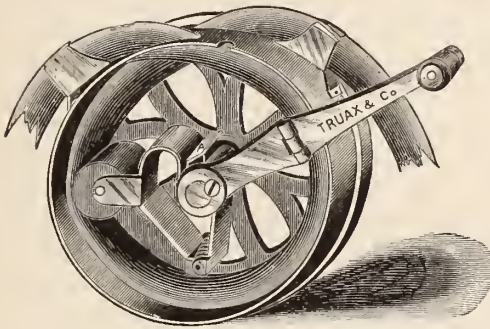


Fig. 1.

called attention to this addition to the surgeon's outfit, and the improvements since made in the pump has rendered a second notice in our judgment necessary.

The accompanying cuts will give our readers a good idea of the interior of

the pump (fig. 1), also the pump as attached to a table and ready for operation (fig. 2). We have been enabled since obtaining this pump to practically test its working in several cases, especially in a case of paracentesis thoracis, where its superiority over other aspirators was satisfactorily proved. In a marked case of retracted nipples, the cupping-glass which accompanies each case, was attached to the breast, and by carefully exhausting the air, the nipples were drawn out sufficiently to allow of nursing, a result which we believe could have been accomplished in no other way.

Dr. R. Pollock recently read an article before the British Medical Society in which he makes the following statements :

"I have used the Allen Pump twice for paracentesis thoracis with the greatest success. It is very handy and reliable. In one case of fetal death, where the induction of premature labor was necessitated, it effectually dilated the os with ease and speed, and to-day, in

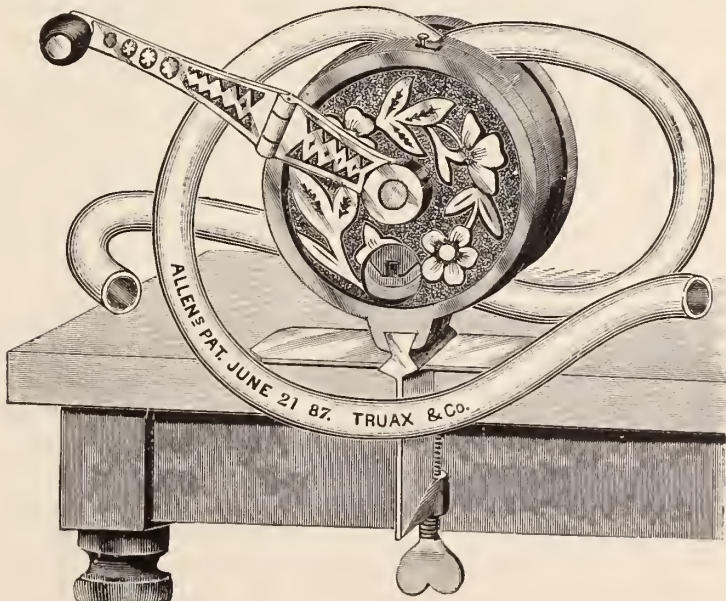


Fig. 2.

a case of placenta previa with alarming hemorrhage, I was enabled by its use to arrest the hemorrhage by its plugging action, simultaneously dilating the os with a satisfactory result to mother and child."

Among the uses to which this pump has been practically applied are, as a uterine dilator, stomach pump, aspirator, in transfusion, and as a syringe. This pump is carefully manufactured by Messrs. Charles Truax & Co., of Chicago, Ill., and is put up in a convenient case, containing all the attachments which could possibly be desired by the most exacting practitioner.

#### A Simple and Efficient Filter.

DR. F. A. CASTLE (*N. Y. Medical Journal*):

For a long time I have used in my butler's pantry a simple contrivance for filtering water used on the table, which has been so serviceable and, at the same time, so inexpensive, that I venture to

recommend it. I took an ordinary glass pharmaceutical percolator (A) and packed the outlet with absorbent cotton (B) so tightly that the water could only flow in drops. By means of a piece of copper wire (C) for a bail, it was suspended from a hook on the lower side of one of the pantry shelves,

over the shelf of the sink. As often as necessary, water is poured into the percolator, and the water pitcher is placed under the outlet. Whenever the cotton shows much discoloration (a thing

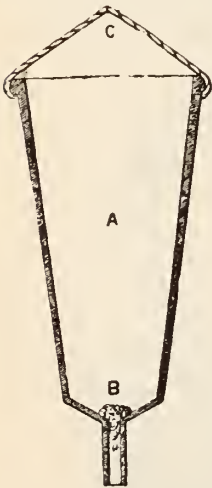
which is easily observed, owing to the percolator being of glass) the maid replaces it with fresh absorbent cotton. It is in all respects the most practical and cheapest filter I know of, and has no machinery to get out of order, no patent right to carry, and the advantage over most filters that the filtering medium is always under observation, so that there is little risk of contamination of the water by accumulations of filth.

#### Immediate Wiring of Fractured Patella.

DR. FRANK W. ROCKWELL has investigated the question as to whether the immediate treatment of recent fracture of the patella by wiring is a justifiable operation or not. (*Brooklyn Medical Journal*.) From a critical examination of reported cases the author claims that immediate suture of a fractured patella, is not only a justifiable, but an eminently proper and desirable operation. First, in all cases of compound fracture, and, second, in all cases of fracture due to direct violence or muscular causes, where the general condition of the patient is such as to admit of any serious operative interference.

#### A Rapid and Simple Method of Reducing Dislocation of the Shoulder.

IN all the methods ordinarily employed "for the reduction of dislocations downward of the humerus, the trunk is fixed and the head of the humerus is raised into the glenoid cavity. Dr. ABRIL inverts this proceeding; his plan is to fix the humerus and to make the glenoid cavity descend on to the head of the humerus. He claims for his method that it is most simple, easily and quickly done, that chloroform is not necessary to obtain muscular relaxation, that the pain is trifling, and that no assistants are required. He makes the patient stand with a crutch in his





axilla; he then holds the hand of the affected side, making slight traction downward; the patient is now to let himself down as if he were going to fall on his knees, and as he falls the head of the humerus glides into its normal position, and the patient is surprised at finding himself cured.—*London Med. Record.*

#### Scrofulous Neck and its Surgical Treatment.

DR. WILLIAM F. GIBB, in a paper published in the *Glasgow Medical Journal*, after discussing scrofulous neck and the remedies proposed for its relief, states his opinions in the following propositions:

1. In scrofulous disease of cervical glands we have a tubercular process of a mild type, seldom leading to generalized infection, but perhaps occasionally doing so; frequently concerned in predisposing to, or even directly occasioning, phthisis pulmonalis; and in the majority of cases deteriorating the general health.

2. Tubercular disease of the cervical glands is too often allowed to go on to a disastrous extent, without any active steps being taken to arrest its course, largely from a prevalent indifferent and hopeless feeling on the part of the medical profession.

3. Slight cases, offering every possible advantage in the matter of constitutional treatment, should be carefully watched; and if, after the lapse of months, or it may be a year or two, we find the disease spreading, it is wise to extirpate the affected glands while they are yet movable. In such cases the operation will be easy, and little or no deformity need result.

4. To quote Teale, whose directions are full and clear, surgical interference is demanded whenever a sinus resulting from a degenerating gland exists; when-

ever pus can be detected in connection with a gland; and whenever there are enlarged glands accessible to surgery in a patient in whom a caseous or suppurating gland has already been discovered.

The author appends to his paper four cases illustrative of the disease and its treatment.—*Med. & Surgical Reporter.*

#### How to Clean the Hands.

DR. P. FÜRBRINGER, of Berlin, has published a pamphlet upon the disinfection of the surgeon's hands and finger nails. From an abstract in the *Medical Press and Circular*, we take the following, which the author recommends as the speediest method of cleansing the hands, consistent with security:

1. The nails are to be cleansed dry (scraped or rubbed) from all visible dirt.

2. The hands are to be thoroughly scrubbed with a brush for a minute and a half in hot water and soap, special attention being paid to the edges of the nails.

3. They are then to be washed for one minute in alcohol (not under 80 per cent.), and then, before drying.

4. They are to be put into the disinfecting solution, 2 per cent. sublimate or 2 per cent. carbolic solution, and here to be thoroughly cleansed for another minute.

He claims for this method (1) Certainty of disinfection. (2) Saving of time. (3) Saving of the hands. (4) Smaller expense of the sublimate.—*Ibid.*

#### Toothache.

DR. POPOFF, writing in the *Russkaya Meditzina*, states that he has succeeded in relieving toothache caused by caries of the teeth by making the patient rinse the mouth every half-hour with a deserts spoonful of a twenty per cent. solution of permanganate of potash, taking



care to hold it in the mouth for some minutes.—*Med. and Surg. Reporter.*

#### Disinfectant.

THE following disinfectant has been used in the wards of some of the city hospitals, with gratifying results: Saturated sol. zinc chloride, 70 parts; crude glycerin, 28 parts; carbolic acid, 2 parts; water, q. s. ad 2000 parts; ether, q. s., to disguise the odor of the carbolic acid. M.

The above is the concentrated solution, and for use take concentrated solution, 1 part; water, 9 parts; M. et. S.—*Medical and Surgical Reporter.*

#### Treatment of Fresh Open Wounds.

DR. O. C. SMITH, of Austin, Texas, advocates the following method of treating fresh open wounds: Two lotions are used. The first is made by adding comp. tincture of iodine to clean hot water, until the water is a light cherry-red; and this is designated the "cleansing lotion," which should be used as hot as comfortable to the hand of the operator. The second lotion, which is called the "healing lotion," is made thus: R. Spts. turpentine,  $\bar{\text{z}}$  ii; powdered gum acacia,  $\bar{\text{z}}$  i; aqua destillat.,  $\bar{\text{z}}$  ii. Mix well, and add: Camphorated tincture of opium, pure white sugar, in fine powd.,  $\bar{\text{aa}}$   $\bar{\text{z}}$  ii. Mix well together.

Immediately after all necessary ligation and torsion has been done, the hot cleansing lotion should be freely streamed over the surface of the wound with a clean sponge, using the lotion hot, pure and clean, until all blood oozing has entirely ceased, and for several minutes longer. At no time during the cleansing or dressing process should the raw surfaces of the wound be wiped or even touched with the sponge. As soon as the cleansing lotion

has ceased to drip from the wound, the healing lotion should be freely and thoroughly applied to every part of the wound.

The wound is now ready to be coaptated, which should be done in a gentle, accurate manner, using as few sutures as possible, and preferring carefully graduated ones; secure even pressure by bandages over dry, absorbent cotton compresses. A good sized pledget of absorbent cotton, proportioned to the size of the wound, saturated with the healing lotion, should be snugly placed over the joined edges of the wound, and over this a thick compress of dry, absorbent cotton, held in place by carefully applied bandages.

If the wound be of such size, shape, or condition that it cannot be coaptated, the foregoing mode of dressing will still be in order. Fresh wounds in sound flesh, that can be accurately coaptated, dressed in this manner, usually heal by first intention, and even extensive lacerated contused wounds will rarely suppurate, but heal rapidly, giving little pain and never producing septicæmia. Wounds thus dressed should not be molested as long as they are comfortable and emit no odor, or show no signs of suppuration. As a rule with rare exceptions, wounds thus dressed should not be wet with water after the primary dressing, as dryness is highly conducive to safe and rapid healing.

In subsequent dressings, the same means and principles before referred to should be carefully observed. But, from any cause, should the healing process cease to progress, the healing lotion should be withheld, and, for a few days at least, the wound dressed with a dry powder, somewhat like the following: R. Socot. aloes, iodoform, boric acid, in fine powder,  $\bar{\text{aa}}$   $\bar{\text{z}}$  i; acetate morphia,

gr. x; subnitr. bismuth,  $\frac{5}{8}$  ii. Or the following: R. Pure sugar, camphor, in fine powder, āā  $\frac{5}{8}$  i; muriat hydrastis, gr. viii. Mix well. Sig. Spread freely over all the raw surfaces of the wound; and renew the dressing—without water; as soon as the wound discharges begin to moisten the dressing, or the wound emits a perceptible odor.

In the topical treatment of some wounds, owing, probably, to some dyscrasia of the flesh juices, in order that they may continue to heal uninterruptedly, the character and composition of the topical medicament must be changed every two or three days.

Wounds dressed after the foregoing plan, however extensive, if properly attended to, very rarely suppurate or emit any odor whatever.—*Medical Register*.

#### Sutures.

AFTER abundant trial and comparison, the conclusion was arrived at by the author that, as a rule, the interrupted suture is in every way preferable to the continuous one. The exceptions are mentioned at the proper place. The chief advantage claimed for the continuous suture—namely, the saving of time—is illusory. As regards safety in holding, and exactitude of adaptation, the interrupted suture has no peer. This very sensible observation is made by Dr. Arpad G. Gerster in his work on aseptic and antiseptic surgery.—*St. Louis Medical and Surgical Journal*.

#### Spread of Abscesses.

DR. ARPAD G. GERSTER, in his recent work, states very pertinently that the notion that the law of gravity alone regulates the spread of abscesses is an erroneous one, as it is well known that many forms of suppuration extend in a diametrically opposite direction to the

force of gravity. The local spread is prescribed by the direction of the loose connective-tissue planes separating and connecting the different organs, and is mainly influenced by hydrostatic law. Perforation always takes place where resistance is the least.—*Ibid*.

#### Restoration of the Flexor Tendon of the Thumb.

M. MONOD, not long since, presented a patient of whom he had spoken to the Société de Chirurgie, of Paris. As the result of an accident, the flexor tendon of the thumb had been cut. The two extremities had retracted to such a degree that they could not be directly united. To establish a continuity of tissue between them, M. Monod, introduced a rabbit tendon and sutured it to the two extremities of the cut tendon. The result proved to be a complete success as the flexion of the thumb is not only complete, but strong.—*Ibid*.

#### Grafts of Chicken Skin.

G. MARTIN reports a case (translated from the French for *Physician and Surgeon*) of a child whose entire scalp was burned, and eight months later grafts of the skin of fowls were used with the result of obtaining a regeneration of skin, seven centimeters by eight, in two months.

In speaking of transplantations, he says:

We think that the skin of fowls, and especially of chickens, is to be recommended; it is supple, of fine texture and vascular, and it stretches well over the surfaces, and adheres without reabsorbing, giving important islands of epidermis which develop and spread, forming new tissue, soft and quite different from ordinary cicatricial tissue. The manual of operation which we employ in our grafts is very simple. The skin

should be raised under the wing of young chickens and should have no cellular tissue attached, and no fat; the shreds should be one-half to one centimeter square; sutures are useless, the skin adhering very easily. The wound and the dressing should be rigorously aseptic. Iodoform gauze and light cotton compresses may be used.

These are certainly interesting facts for the general practitioner who often has extensive ulcerated surfaces to treat; and patients often, through ignorance of the amount of pain given in taking the grafts from the arm, decline to submit, whereas the chicken skin can always be readily obtained. We are inclined to think that this effective aid to the healing of extensive denuded surfaces is not resorted to as frequently as it should be. It not only hastens repair, but lessens the amount of cicatricial contraction which follows.

Recently several operations have been reported in which the contraction that follows the healing of long-standing trachoma has been effectually overcome by transplanting mucous membrane from the lower lip.

#### Treatment of Ranula.

VERCHÈRE recommends in the *Archives de Laryngologie* the treatment of ranula by puncture and injection of a ten per cent. cocaine and a one-tenth per cent. chloride of zinc solution. The tumor is punctured with a Pravaz's syringe and emptied by aspiration. The canula is left in the sac, into which is then injected half a syringe of a ten per cent. solution of cocaine, followed by ten or twelve drops of a one-tenth per cent. solution of chloride of zinc in distilled water. The inflammation which follows is usually not very violent and recovery is rapid. In the place occupied by the ranula there remains a small nodule,

which occasions no disturbance.—*Wiener Med. Presse.*

#### Treatment of White Swelling by Electricity.

IN a very interesting work by DR. LÉON DANNION, on the treatment of white swelling by electricity, the author summarizes as follows his conclusions on this mode of treatment which he has adopted for several years: 1. The results obtained until now by electricity applied to white tumors in full evolution, with or without fistulous tracts, show: (a) that it can arrest its progress; (b) that it can determine a regression of the fungous development; (c) that the part comprised might recuperate at least partially and sometimes to a great extent its integrity and its functions. 2. Although one can always gainsay the sense of the ulterior evolution of an arthropathy, the power of electricity to check a white swelling at its origin seems undeniable. In any case after the excellent effects produced by it in arthritis, whatever be its origin, it should be employed as a preventive means to all arthropathies in general, or at least to those of a suspicious nature. 3. The therapeutic power of electricity is due to its special antiphlogistic and entropic property, that it acquires from the intimate relation which exists between the human electrogeny and the nervous function.—*Jour. American Medical Association.*

#### Bloodless Treatment of Ingrowing Nail.

DR. PATIN recommends the following procedure for removal of ingrowing toe nail, which he has employed with excellent results in all of his cases. After thorough cleansing of the nail, a solution of gutta-percha 10 parts, in 80 parts of chloroform, is applied with a brush to the interstices between the nail and the granulations. This is repeated

several times on the first day, and subsequently at longer intervals. By exercise of care and patience it will be found that the nail is gradually lifted from the underlying parts, and can then be removed without pain with the scissors. If a properly fitting shoe is worn no recurrences need to be apprehended. The solution applied in this manner exerts a double effect, the chloroform is anæsthetic, and the gutta-percha acts mechanically, forcing its way between the granulations and the nail, and finally liberating it from its abnormal position.—*Gazette des Hôpitaux*.

#### Fistula in Ano.

THE best method for curing fistula in ano without the use of the knife is by passing a silk or gum-elastic cord through the fistulous tract and bringing it out of the rectum, tie it. This will excite inflammation, and the cord will gradually cut its way out, followed by granulation. By this method the patient can be cured and follow his ordinary occupation.—*Coll. and Clin. Record*.

#### A New Antiseptic Soap.

UNTIL quite recently a satisfactory soap containing as an antiseptic one of the salts of mercury, has been difficult to prepare, on account of the alkaline soap refusing to yield a good lather, oleate of mercury being formed—a compound which has little or no germicidal action. One of the most powerful antiseptics of the mercury salts is, as is well known, the bichloride. Moreover, it is cheap, and easily soluble, but it has the disadvantage of being extremely poisonous and easily reduced by albuminoid matter, with which it combines, thus being rendered inactive. In a paper recently read before the Society of Chemical Industry in Glasgow, by John Thompson, the solubility

of the red biniodide of mercury (which is claimed to be even a more powerful antiseptic than the bichloride) in iodide of potassium has been made use of. A soap can thus be easily prepared containing a certain proportion of the biniodide in a soluble form. It is stated to be permanent, having no tendency to separate, and to be more germicidal in its properties than any other antiseptic soap yet known. Experiments were made to demonstrate this. Sterilized silk threads were suspended in a solution of the biniodide soap (one gramme of soap in 120 cubic centimetres of water) for ten minutes after being saturated with solutions containing well known micro-organisms, among which were streptococcus scarlatinæ (Klein), bacillus subtilis, orange sarcina, white bacillus from Tweed water, organisms from putrid urine, the micrococcus of osteo-myelitis, aspergillus nigrescens, spores from various fungi, yellow micrococcus from pus, putrefactive organisms, bacterium termo, and bacillus scarlatinæ (Edington). The threads were then carefully washed to remove the soap, and placed in sterilized gelatine in the ordinary way. The threads were controlled by first sterilizing, and then plunging into nutrient gelatine; if no growth occurred they were accepted as being fit for use in the experiment. Washing the threads previously contaminated with organisms two or three times carefully with distilled water, was shown by experiment not to remove the organisms, for on being placed in the gelatine growth readily took place. The results, as shown in tables, are very remarkable. In all these experiments, with a few very uncertain exceptions, growth of the organisms was completely prevented, even after the lapse of four days. Similar experiments made with "carbolate of



mercury" soap showed it to be less powerful as a disinfectant, and much slower in its germicidal action. In experiments carried out in the same manner with other antiseptic and ordinary soaps, it was shown that the growth of the organisms in many cases was not prevented. The importance of such a soap in medical and sanitary science is very obvious. The biniodide soap has been used in the treatment of eczema with well marked success, especially where the irritation is due to the fermentations of accumulated secretions, the fermentation being set up by micro-organisms. It has also met with similar success when used in parasitic skin diseases, such as favus and ringworm. As a parasiticide, too, the importance of its application to patients during the period of desquamation in scarlet fever is evident.—*Lancet*.

#### Some Points in Treatment at the Memorial Hospital, Orange, N. J.

DR. JOHN H. BRADSHAW, M. D. (*Weekly Medical Review*):—The following notes are merely brief records of some of the more recent cases and methods of treatment at this institution.

Bisulphite of soda solution is mainly depended upon for the treatment of erysipelas. The usual fifty per cent. solution of the shops is diluted with water three times, and is used locally under oiled silk, continuously until all redness of the skin has disappeared.

Cellulitis of the hand has met with a steady check by the continuous, cold, permanganate of potash drip, half a grain to a pint of water.

Fistula in ano\* has here (after the method inaugurated by Dr. Pierson, in 1876) received a most radical, sharp spoon treatment. All sinuses are laid open, and their diseased walls are dissected or scraped away. The wound is

then united, under strict antiseptis, with sutures. Several extensive multiple fistulæ are recorded as healed by first intention.

Heaton's operation for hernia has not been successful at this hospital; four cases are recorded.

Nerve stretching for sciatica has met with uniform success. Out of seven cases recalled, six were permanent cures, after having been for years treated in vain by almost every conceivable method. The seventh case was discharged improved.

The diachylon ointment of Hebra has proved the best all-round ointment for squamous eczema. It should be made with olive oil.

Only selected cases of hemorrhoids are injected. The clamp, scissors and cautery have given best results.

Burns, if extensive, after first being dressed with some protective oil or powder combined with bicarbonate of soda, are, upon the removal of sloughs, actually peppered with skin grafts. The compound resin ointment, with carbolic acid, then serves as a mildly stimulating dressing.

The use of dry powdered boric acid packing for cervical endometritis, erosions and ulcers of the cervix uteri has done away with the glycerine tampons.

Fractures are treated with Levis's splints, Buck's extension, or plaster or silicate of soda immovable splints, as indicated. If of the jaw, the hospital dentists mould a rubber interdental splint. There is an intentional scarcity of fracture apparatus.

Morbus coxerius, if in the first stage, receives a light plaster, or glass spica, high shoe and crutch. If the child is too young to use crutches, it is kept as much as possible running about in a Darrach wheel crutch. (*Orthopedic Surgery*.) The suppurative stage receives

operative treatment, and rest in cuirass. Spinal caries is treated by the support of a Sayre plaster jacket and wheel crutch.

Ulcers of the leg, of whatever variety, are usually first poulticed, if sloughy, and, when clean, a dry powder dressing of bismuth, boric acid (impalpably powdered) or calomel is used under bandage from the toes up, with elevation of the affected extremity. Should granulations be protuberant, they are strapped with the ordinary basket strapping of surgeon's plaster.

A recent case of laparotomy for cystic degeneration of both ovaries was delivered, six weeks before the operation, of a healthy child. Only after her confinement, when her abdomen remained over forty-four inches in girth, was she suspected of having an ovarian tumor. A noteworthy peculiarity about this case was that the umbilicus was protuberant, as is seen in ascites. A double ovariectomy was made, and the patient walked about her room on the fourteenth day.

For all operations which are likely to expose and chill the lower extremities, the legs and thighs are wrapped in cotton batting, and loosely bandaged by the nurse, before the patient is brought to the operating room.

Hick's vaginal speculum has been found to be all that it claims; it is absolutely self retaining, and gives a wider field for operations upon the cervix uteri than others.

For the last five years Billroth's anesthetic mixture (introduced here by Dr. Simpson: ether, three pints, alcohol and chloroform, each one pint) has been employed for operations. It is thought to be followed by less nausea than is ether, and is decidedly more agreeable to the patient. The average time of anesthesia is eight minutes.

In our lying-in department we recent-

ly had a case of empyema in a woman in her ninth month of gestation. The right pleural cavity was aspirated of a little over a quart of pus at each tapping, three times successively during the five weeks preceding labor; the last aspiration was made two days before her confinement. She was delivered under careful antiseptic midwifery, and recovered from her labor with no untoward symptoms, although her right pleural cavity was again full of pus on the tenth day. She refused permission to make free drainage openings, and, after another aspiration, she carried her child away to her own home, where she was lost to observation.

Pleuritic accumulations of serum are almost invariably removed by aspiration; but when not, active counter irritation and diuretic treatment are practised.

More care is bestowed to make operations aseptic than ever before. Great cleanliness, free use of antiseptic solutions, sterilized instruments, silk, catgut, and wire; the use of boric acid, iodoform, free drainage, sublimated gauze, and indefatigable care and supervision on the part of the head nurse, have made a revolution here as elsewhere. The Lister spray is only used to wash the air of the operating-room before operation. There was recently an abortive attempt to revive the use of the Lister protective. The Mackintosh is still sometimes used when indicated to keep the dressing from becoming too dry.

At the hospital stimulants are given only when indicated, there being no record of their routine use.

Typhoid fever is treated expectantly. In hyperpyrexia antifebrin in four-grain doses has proved more efficient and safer than antipyrin.

Pneumonia is treated with the so

called pneumonia-jacket (cotton batting under oiled silk), and occasionally poultices are employed. No medicine is given unless demanded by alarming symptoms.

Those of our consumptives that survived the Bergeon treatment find great relief and sometimes actual benefit from the compound cannabis Indica mixture, introduced here by Dr. J. W. Stickler. Its formula is as follows.  $\mathcal{R}$ . Tr. cannab. ind.,  $\bar{5}$  ss.; vironicæ (blue verbenæ), gr. viijss.; ext. buchu fl.,  $\bar{3}$  j; pulv. verbas. thap. (mullein), gr. xv; sacch. alb.,  $\bar{5}$  j; spts. vin. rect.,  $\bar{5}$  jss.; mel. despumat.,  $\bar{5}$  ij; spts. chlorof.,  $\bar{3}$  ij.—M.

A teaspoonful of this on going to bed acts as a sedative and anodyne, and is followed by quiet sleep. The dose, one dram to one-half an ounce, is given during the day, p. r. n., for cough. There are three standard cough mixtures: 1. Expectorant (mur. of amm., as its base). 2. Sedative (hydrobromic acid and chloroform with syrup). 3. Expectorant and tonic (mur. ammon. and digitalis its principal ingredients). We have found a mixture of quinine and alcohol, twenty grains to one pint, of much service as a bathing lotion for night sweats. When this fails we give the "ward sweat mixture," which contains to each dose atrophine one one-hundred-and-twentieth of a grain, morphine one-sixteenth of a grain, acid sulphuric dilute ten minims.

Acute articular rheumatism is treated most successfully at first with full doses of salicylate of soda at frequent intervals, followed in convalescence by iodide of potash and ferruginous tonics.

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#### VENEREAL DISEASES.

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##### The Therapeutics of Circumcision.

AN elongated and tight prepuce is answerable, as is well known, for many

disadvantageous conditions, which are happily remediable by adopting the simple plan of removing the redundant adjunct to an otherwise perfect organ. This mutilation, if such it may be called, is, therefore, oftentimes essential for the well being of the child or the adult; and apart also from the immediate cause which may happen to have led to its adoption, it is every sense of the word always a hygienic procedure. In a recent number of the *Revue Médicale de la Suisse Romande*, REVERDIN has published a useful article which bears upon this question. He quotes an American authority, Adams, who recommends circumcision in the case of children who suffer from nocturnal incontinence of urine, in whom this symptom can be attributed to no other cause. The same authority affirms that symptoms of coxalgia are sometimes produced by phimosis, relief from which is readily to be obtained by performing circumcision. Reverdin relates a case which supports this opinion. A child, æt. 9, suffered for several weeks from signs of hip-joint disease. The case was diagnosed as one of this description, and the patient was confined to bed for five months and extension applied. At the end of this period his condition was in no way improved. At this time, however, it was noticed that the prepuce was elongated and tight, for which circumcision was performed, and all the symptoms vanished at the end of three days. A year subsequently to the operation the patient was quite well, and had not suffered from any recurrence. Reverdin observes that he has noticed circumcision to produce a notable amelioration in the physical state of a young hypochondriacal man, who had even attempted suicide; cases of epilepsy seem also to be much relieved in certain instances by the opera-

tion for phimosis, and the same may be said of chorea and other nerve affections. The close connection, again, which subsists between hernia and phimosis in infants, is generally admitted, and is frequently to be seen in the out-patients of hospitals.—*Medical Press*.

#### Treatment of Gonorrhœa with Iodoform.

DR. PAUL THIÉRY, in the *Progrès Médical*, recommends injections of finely powdered iodoform suspended in sweet-almond oil in gonorrhœa. He cites six cases which were cured in less than two weeks with about seventeen injections. Aside from its antiseptic properties, the injections of iodoform greatly relieved the pain of the disease.—*Therapeutic Gazette*.

#### Malignant Tumors of the Prostate.

NEOPLASMS are in 90 per cent. primitive. In 10 per cent. they affect children from the age of 1 to 10.

Carcinoma furnishes 86 per cent.

Sarcoma is exceptional.

The connections of the gland and its abundance of lymphatics, explains the almost constant and rapid spread (diffuse prostatopelvic carcinoma).

Implication of the bladder is exceptional.

The predominant symptoms are functional disturbances of the urinary apparatus.

Hæmaturia is often absent.

The younger the subject, the more rapid the course.

The evolution varies from three months to five years.

The exploration of the pelvic cavity and the existence of radiating pain, form the best basis for diagnosis.

The gravity of prognosis, and the severity of some symptoms warrant operative interference, but, on the other hand, removal of the tumor is useless,

on account of the rapidity of diffusion.—*Thèse de Paris*.

#### Milk and Lime-Water in Urethritis.

DR. L. LEWIS (*Medical World*):

THE sedative, corrective, and astringent qualities of lime-water are well exemplified in its effect upon eczematous eruptions, infantile diarrhea, otorrhea, and ear-discharge from scarlet fever. In leucorrhœa also, lime-water is a frequently useful local remedy. We have recently prescribed it with equal parts of fresh milk, in the treatment of non-specific urethral discharge, and with much benefit. It can do no harm, and has, in our hands, mitigated the discharge of urethritis and even gleet. Milk is itself rich in iron, and thus aids the astringent action of the lime-water. In the diarrhea of typhoid fever, excessive lactation, and other profuse discharges, milk is a valuable restraining agent internally, also in ulceration of the stomach; and it is rational to suppose it would benefit urethral discharges of the milder variety.

#### Surgical Treatment of Suppurating Venereal Bubo.

DR. KARL SZADEK (*Kiew.—Heft*):

After a most comprehensive review of the literature of all languages on this subject, embracing one hundred and fifty citations, beginning with Astruc, Benjamin Bell, and Swediaur, through to Petersen, S. gives the method of treatment at the Kiew Military Hospital as the most modern and shortest. After expressing his distrust of any attempt to abort the bubo before suppuration commences, be it with tinct. iodinii, carbolic acid, or pressure, he advises: As long as there is no fluctuation or redness, rest alone is recommended. When hyperemia appears, a compress soaked in carbolic solution



should be applied until suppuration takes place. The incision should be made parallel to Poupart's ligament, and should be sufficiently large. All affected glands, whether involved in the suppurating process or not, should be removed either with the fingers, the blunt knife-handle, or the curette. If the skin shows any signs of gangrene, those parts should be removed with the scissors. The wound should be thoroughly disinfected and filled with iodoform and iodoform gauze. S. does not believe in the suture, as union by first intention is a rarity, and even then the cure requires as long a time as with the open treatment. He generally changes the dressing but three times. The first dressing is kept in place from two to five days. When taken off the edges of the wound are cleansed with five per cent. carbolic solution, or one per cent. bichloride of mercury, the cavity is filled with iodoform without irrigation or tampons, and a dry bandage replaced. The second and third bandages are applied in the same manner after from five to ten days. —*Therapeutic Gazette.*

## DISEASES OF THE EYE AND EAR.

### Notes on Pterygium.

LOPEZ (*Rec. d'Ophthal.*) draws the following conclusions as to the pathogenesis and development of pterygium: 1. Repeated action of extraneous agents, such as dust, smoke, wind, heat, etc., upon the horizontal diameter of the eyeball. 2. Consecutive formation of a pinguecula, which is but the first stage of a pterygium. 3. Denudation of the epithelium over the pinguecula and neighboring portion of the cornea by the action of the same causes. 4. Implantation of micro-organisms in the loss of substance or denuded spot, and

adherence of the pinguecula to the cornea. 5. Progressive growth of the pterygium by propagation of the microbes. 6. Limitation of its extension at the centre of the cornea for some unknown reason. 7. Triangular shape of the pterygium by the disposition of the blood-vessels in the form of spokes of a wheel. Hence the definition of a pterygium should read: Partial hypertrophy of the ocular conjunctiva, which by the action of certain germs is implanted in and grows upon the cornea, without alteration of tissues.—*N. Y. Med. Jour.*

### An Instrument for Testing Refraction and its Errors, the Strength of the Recti Muscles, and their Insufficiency.

HOLDEN (*Arch. of Ophth.*) has devised an instrument for the above purpose, which consists of a thin brass disc, 0.85 mm. in diameter, rotating on a stand adjustable in height. On each side of the disc is a clip for holding lenses, each allowing 90° rotation of the lens. On one side of the disc, in addition to the clip, is a groove in which a lens of oblong shape can be slipped laterally. In the centre of the disc is a perforation 9 mm. in diameter. A small sliding disc slips before and covers the large perforation. This small secondary disc has at one place a vertical slit and at another place two perforations, each 1 mm. in diameter and 4 mm. apart. The lenses are a cylinder of + 7 D. and one of — 7 D., and a prism of 6°. These are similar to the ordinary test lenses, and slip into the clips, where they may rotate 90°. In addition there is a — 10 D. cylinder cut in an oblong shape, which slides laterally in the groove on the disc. The tests are made by rotating the cylinders of 7 D. (the + cylinder in testing hypermetropia and the — cylinder in testing myopia) before the disc with the two small perforations

placed horizontally, while the patient looks through them with one eye at a light 6 mm. distant. The cylinders are placed at a right angle to each other and two horizontal images are seen. When either cylinder is rotated, one image revolves about the other, and the images come into a vertical line. Then when the + cylinder is rotated, one image revolves about the other, and at that point in the rotation where the images become vertical, a pointer on the cylinder indicates on a calculated scale marked on the disc the amount of hypermetropia in diopters in the horizontal meridian. When the — cylinder is rotated and the images become vertical, the pointer on that cylinder indicates the amount of myopia in the horizontal meridian, on a calculated scale marked on the other side of the disc. The patient is seated before a high table or shelf on which the instrument is placed, and the stand is adjusted to the height of the eye. One eye is now closed and the patient looks with the other through the two horizontal perforations at a small light six metres distant. Two horizontal images of the light are seen, and when the + cylinder is rotated, if the images become vertical before the end of the scale is reached, there is hypermetropia in the horizontal meridian, and its amount is read off the scale. If the images become vertical only when the end of the scale is reached, there is no hypermetropia in the horizontal meridian, and the — cylinder is then rotated, and when the images become vertical, the amount of myopia in the horizontal meridian is read off the scale. If the images here become vertical only when the end of the scale is reached, there is no myopia. The disc is next rotated  $90^\circ$ , making the perforations vertical, and the vertical meridian of the eye is tested. The

images appear vertical, and when the + cylinder is rotated they become horizontal, and the amount of hypermetropia in the vertical meridian is read off the scale. If the images become horizontal only when the end of the scale is reached, there is no hypermetropia. The — cylinder is then rotated, and when the images become horizontal the myopia is read off the scale, or if the end of the scale is reached there is no myopia. If the error is of the same amount in both meridians, the case is one either of simple hypermetropia or of myopia, or possibly a case of astigmatism with the principal meridians at  $45^\circ$  and  $135^\circ$ . If the amount of error is different in the two meridians, astigmatism is present. As a large proportion of astigmatic cases have their principal meridians at  $0^\circ$  and  $90^\circ$  or a few degrees from these, cylinders of the strength we have found by the instruments are taken from the test case and put at  $0^\circ$  and  $90^\circ$  in a test frame. If now the patient reads 20/20 by the Snellen types, the astigmatism is at  $0^\circ$  and  $90^\circ$  and has been determined. If the correction is not attained at once, we proceed to find the meridians of greatest and least curvature, and test them likewise. The image may be looked through from either side, and in testing hypermetropia the — side is placed next the eye, so that the operator may rotate the + cylinder readily; and when myopia is tested, the instrument is turned the other way. In testing the strength of the recti muscles, the cylinders used for refractive tests are taken out of the clips; the small disc is slipped so that the vertical slit is in the centre of the instrument, and a quadrilateral cylinder of — 10 D., 12 mm. wide in the line of its axis and 36 mm. long, is placed in a groove, in which it slides laterally before the ver-

tical slit. The axis is placed in line with the slit, and a distant light is observed with one eye looking through the slit, and the other outside of the instrument. A single light of the image is seen, and as the lens is slowly slipped outward, at some point double images appear, which run some distance apart and cannot be fused again. Then on a scale on the instrument is indicated in degrees the strength of the prism which the external muscles will overcome. The lens is then slipped inward, and in the same manner the strength of the internal muscles is read off the scale when double images appear. The whole disc may be rotated  $90^\circ$ , and in a similar way the superior and inferior muscles may be tested. In testing for insufficiency of the recti muscles the small disc is slipped aside, leaving the large perforation in the centre of the instrument, and a prism of  $6^\circ$  is placed upward in one of the clips. The patient, looking with one eye through the perforation, and with the other outside of the instrument, at a distant light, sees two images. If the images are exactly vertical, there is no insufficiency. If the images are oblique, the prism is rotated base inward until the images come into a vertical line, and then the degree of insufficiency is read off a scale on the disc. The ordinary line with a central dot is used in a similar test for insufficiency for near objects. Then the disc is rotated  $90^\circ$ , and the images will appear horizontal if the superior and inferior recti are balanced. If the images are oblique the prism is rotated until the images become horizontal, and the degree of insufficiency of the superior or inferior recti is read off the scale. If the images are fused when the prism is placed horizontally, a supplementary strong prism is slipped into the other clip, and the scale is not altered. In

testing the internal recti, if the images show any tendency toward oscillation, a supplementary prism may be placed vertically in the other clip, and the images will be seen farther apart and oscillation will not occur.—*Ibid.*

#### One of the Causes of Stationary Amblyopia.

IMBERT, in *Annales d'Oculistique*, says that the symmetry and the malformations of the eyeball may be referred to one and the same physical cause—the elastic reaction of the enveloping membranes of the eye, which is brought into play by the intra-ocular tension. But while explaining the facts in this manner, the tension and curvature of the membranes should also be considered, in order to avoid mistaking cause and effect.

#### Researches on the Subject of Ocular Grafting.

BARABAN and Bohmer have been experimenting with intraperitoneal grafts of the eyeball, and from these experiments and the experience of others, have drawn the following conclusions: The æsthetic value of the operation of grafting an eyeball into the human orbit has proved to be practically *nil*, since the so-called success consists in nothing but the insertion into the orbit of an organ which steadily atrophies, and in which the lens becomes probably calcareous, while the cornea assumes gradually the character of a skin covered by epithelium. The larger the dimensions of the cornea the less are the chances of its preserving its integrity. The cornea rapidly becomes vascularized, and its tissue is as rapidly transformed. Its laminæ lose their homogeneous aspect, and seem to be decomposed into fibrillæ. This change begins in the vicinity of the capillaries. The skeleton frame-work of the cornea disappears

gradually, and its place is taken by an absolutely new tissue. A certain degree of transparency may be preserved during the first few weeks after the operation, but in the end the cornea of the transplanted eye acquires the dull grayish aspect of any connective tissue. —*Ibid.*

#### Eserine in Corneal Ulcers.

DR. HERBERT HARLAN, of Baltimore, says in an article on this subject:

Having been much impressed with the value of eserine in corneal ulcerations, and finding that very few druggists, even in so large a city as Baltimore, keep a supply of the drug on hand, it occurred to me that physicians were neglecting a valuable remedy, and that it would perhaps not be amiss were I to call attention to its value as a therapeutic agent in this class of cases. The best known physiological effect is the marked contraction of the pupil following the installation even of very dilute solutions into the eye. It was in 1875 that the anti-glaucomatous effect of eserine was first discovered by Professor Laqueur, of Strasburg, and its very greatest value is in this terrible disease.

That eserine has the power of lessening intraocular tension has been demonstrated by many observers. In ulceration of the cornea the worst symptom is the photophobia, and the greatest danger is rupture of the eyeball from intraocular pressure. We thus have an agent which, while it contracts the pupil, and shuts out much of the annoying light, at the same time lessens pressure and the danger of rupture, keeping the eye in the best condition for the reparative process, and the patient in the most comfortable situation possible during this time. Thus, theoretically, eserine should be a valuable agent in corneal ulceration, and I think the cases report-

ed below bear me out in the statement that it really is.

There is one variety of corneal ulcer to which I have found it particularly adapted, namely, that following a blow from a piece of an oyster shell, described first, I believe, by Dr. W. J. McDowell, in 1879, under the name of "oyster shucker's corneitis." My experience, however, extending over the last seven years, differs from that of Dr. McDowell in several particulars. First, he lays especial stress on the central location of the lesion, which he refers to as a "pearly opacity of interstitial exudation, appearing always near the centre of the cornea." The etiology he considers "a specific toxic element contained in the slime and dirt which coats the oyster shell," which, getting into the eye, starts the trouble; for, says he, "no trace of traumatism can, by the closest scrutiny, be detected." My notes of cases show that the spots occur any where on the surface of the cornea, often there is evidence of traumatism, and I have many times removed small pieces of shell. Still, in most cases, there is no break in the smooth corneal surface. For the first few days there is merely the perfectly circular white spot, accompanied by photophobia and congestion of the scleral zone of blood vessels. A few such cases go on to get well with simple treatment and without complications. The majority do not, and after days the opacity is very white and looks much like a foreign body. If any attempt be made to remove it as such, it will be found to be a slough of the outer layer of the corneal tissue, free at the edges, and only attached at the very bottom. A day or two later this slough comes away, leaving an ulcer with sharply cut edges of about the size of the head of a large pin. Until I began to use eserine I found these ulcers often



very intractable, entailing on the patient, in most instances, several weeks of suffering.

Of the eighteen cases ten were surely and positively benefited, being under observation several days. Seven were seen but once, and from this fact it is a fair presumption that most of them required no further treatment. One case only did not seem to be benefited. This patient was under observation for seventeen days, and during this time various remedies were used without avail. On his last visit he was directed to return to the use of the eserine. His case was not from injury by oyster shell.

Finally, in the use of eserine two cautions are to be observed: First, not to make the solutions too strong. With many patients a solution stronger than gr. j. to  $\bar{5}$  j. gives a great deal of pain; and, second, to be very sure that the case you are treating is not complicated by iritis.—*Medical Record*.

### DISEASES OF THE SKIN.

#### Some Studies on the Sweat Glands.

DR. A. R. ROBINSON, in a paper read before the New York Academy of Medicine, arrives at the following conclusions:

1. Sweat glands commenced to form at the tenth week of fetal instead of in the fifth month as stated by Kölliker.

2. At four and a half months the coil and lumen partly formed, instead of at the sixth or seventh month, as stated by writers generally.

3. Some ducts communicated with the free surface at four and a half months instead of at the seventh month.

4. The lumen is not formed by breaking down of epithelia, but by a process of secretion, the product collecting between the cells.

5. No cuticula, or lining membrane, existed in the secreting part of the gland, and this structure was not com-

posed of endothelia. It was often present in the epidermis as far as the granular layer, and consisted of the foot-plate of the epithelia.

6. But one row of epithelium lined the excretory duct until the rete prolongation was reached.

7. The muscular layer is not derived from epithelium, and is situated between the membrana propria and the epithelium when forming a continuous layer, and when fibres are isolated a few might be in the capsule.

8. The sweat glands secrete not only fat, but also sweat. Proof of this was offered in a study of several pathological lesions.

9. Malaria rubra and malaria alba are forms of malaria crystalina or sudamina.

10. Lichen tropicus is a form of eczema situated around a sweat duct and associated with hyperidrosis.

11. Malaria crystalina (sudamina) is an exudative affection depending on a neuroparalytic congestion, and not a sweat gland disease.

12. There is an adenitis sudoripara resembling somewhat eczema or dysidrosis in clinical character.

13. There is a cystic disease of the sweat ducts with distinct clinical characters.

A description of the pathological findings in these several diseases was given, and went to show that the function of the sweat glands was not alone to secrete fat, as stated by Unna, but that they had the additional function of secreting sweat, the view which had generally been accepted.

Dr. Heitzman did not regard the proof brought forward by Unna and others as to fat being secreted by the sweat glands convincing. He thought the muscular layer of the sweat glands lay external to the membrana propria.—*Medical and Surgical Reporter*.

## FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

### A New Method of Incision of the Intestine.

DR. H. H. MUDD (*Journal American Medical Association*) :

Enterectomy, or the resection of a portion of the intestine, is regarded as such a tedious and prolonged procedure that many operators hesitate to undertake it in cases in which it is the ideal and desirable operation.

Prolonged exposure of the abdominal viscera and much manipulation of the intestines, adds so much to the shock and also to the danger of exciting peritonitis, that the time and manipulation required by the ordinary methods of excision often render impossible the attempt to thus restore the natural channel.

The tedious and time-taking steps in the operative methods commonly used, have consisted :

*Firstly*, In the great number of interrupted Lembert or Czerny-Lembert sutures used—twenty or thirty being the approximate number.

*Secondly*, In the difficulty of placing accurately the sutures at an even distance from the serous margin of the excised border. This margin is concealed and overlapped by the everted mucous membrane ; the cut edge is soft, pliable, and hard to manage while placing the sutures.

*Thirdly*, There is difficulty in finding an instrument to compress the bowel so as to prevent the escape of fecal matter without injuring its delicate structure, and at the same time not impede the movements of the operator. The fingers of an assistant are the best, but these tire when so many sutures are to be placed, and the hands of an assistant are in the way of the operator.

I shall not attempt to compare the various operative methods pursued in the resection of the intestine, nor yet attempt to discuss fully the merits of the method which I submit to you for your consideration. The method I have followed obviates some of these delays and difficulties ; hence, I venture to submit it to you for your criticism and for trial. The value of any such procedure depends somewhat upon the operator and his familiarity with it, and its general utility can only be attested by the experience of the various surgeons to whom it may commend itself.

The method I have followed during the past few years is one that I first tried March 16, 1886, when called upon to excise a portion of gangrenous intestine for hernia, and as it answered well,



I have continued its use in such cases as have demanded resection at my hands, as also in some experimental work.

The method is as follows : The loop of the bowel being made free and easy of access, two pairs of forceps are placed upon it, marking the lines at which the excision is to be made. Seven or eight presection interrupted Lembert sutures are to be placed before the portion of the bowel to be removed is excised. The outer borders of the forceps serve as an accurate guide for their insertion. A common cambric needle, threaded with a long piece of fine silk, is used to place these interrupted sutures. See cut No. 1.

They are quickly placed, for the intestine is firmly held by the Péan catch forceps or the preputial forceps, which are used as clamps. The needle is entered about three-eighths of an inch from distal side of one pair of the forceps, passed through the serous and muscular coat into the sub-mucous, making its exit about an eighth of an inch from the line of the forceps, after traversing nearly one-fourth of an inch of the intestinal wall. The needle is then carried across the space between the forceps and enters the intestinal wall one-eighth of an inch from the proximal side of the other pair of forceps, and traverses the wall of the intestine, as before described. The thread of the suture thus placed should be long, so as not only to leave a free loop between the two ends of the bowel, but also to give the free ends which are necessary to ease and security in managing and tying the sutures. Two of these sutures, seven in number, should be so placed as to have one on each side of the mesentery; another at the free margin and two intervening sutures on each side of the bowel, dividing equally the space between the free and mesenteric borders. These sutures should be left with long threads and not tied until after the excision is made.

The mesentery should now be secured, by including it, when not more than two or three inches of the intestine is removed, in a single ligature which should be placed parallel to not more than half an inch from the mesenteric border of the intestine. The section of the mesentery is made between the ligature and the border of the gut. The portion of the mesentery included should be fully equal to the intestine excised.

The section of the intestine is now to be made. Before making the section, the bowel at the proximal and distal

side is emptied of its contents and held by an assistant with his fingers. The operator now slips a finger on each side of the portion to be removed, but under the loops of the sutures, and carries these loops first to the distal and then to the proximal side of the two pairs of forceps. The scissors are introduced between the suture loops and the bowel. The section of the bowel is made first at the distal side and then at the proximal end. The bowel and the forceps are removed together.

The line of the Lembert sutures, when thus placed, is even and regular. These presection approximation sutures are tightened as soon as the portion to be excised is removed, and the divided ends cleansed. A continuous suture of fine catgut carried about the bowel, approximates more perfectly the surface of the serous membrane, and closes any



gap that may be left between the interrupted sutures. (See cut No. 2.) The seven interrupted sutures thus placed are quickly and readily tied after the section is made. The continuous suture is easily applied and does not necessarily invert any more of the bowel. The time occupied in such an operation ought not to be more than fifteen or twenty-five minutes, after the bowel is exposed and makes possible an enterectomy when the older methods are not permissible, for the time occupied need not exceed that necessary for the production of an artificial anus.

The advantages believed to be possessed by this method of operation, are :

1. The manipulation of the portions of the intestine which are to be united is reduced to a minimum.

2. All tissue which has been included in the grip of the compression forceps is removed.

3. The line of the forceps gives an accurate and perfect guide for the placing of the sutures, and makes certain the section and the reunion of the bowel at right angles to its axis.

4. The rapidity with which the interrupted Lembert sutures can be placed is very much greater than where the attempt is made to put them in position after dividing the bowel, and the divided ends are not long exposed ; hence, it is more nearly the ideal aseptic operation.

5. The union of the divided ends is accurate and sufficiently firm to retain fluid matter. This is accomplished with a few—seven or eight—interrupted silk sutures and a continuous catgut suture placed in or near the same line as that occupied by the interrupted sutures. This continuous catgut suture extends around the circumference of the bowel, reinforcing and sealing the Lembert sutures.

6. The aversion of the mucous membrane is controlled and fecal extravasation prevented.

7. The time necessary to complete the operation is much shortened, because (*a*) the clamps give easy and perfect control of the suture line ; (*b*) a limited number of interrupted sutures are used ; (*c*) the continuous catgut suture is quickly and easily placed ; (*d*) there is no delay in pushing out of the way the averted mucous membrane which so much delays the placing of the interrupted sutures.

The difficulty of securing the serous

margin and holding quietly the edge that is to be approximated, can be appreciated only by those who have made the effort.

The only stumbling block in the way of a rapid and satisfactory operation is the management of the long threads of the presection Lembert sutures after placing them, and while making the section of the bowel. This is easily overcome by placing them on a folded towel and by slipping the fingers under the central portion of the loops on each side of the bowel, and carrying the loops back with the fingers beyond the forceps, over the healthy intestine, previous to making the section. The interrupted and the continuous sutures should be carried well down into the wall of the bowel, so as to include the sub-mucous tissue.

The Péan catch forceps answer well for the clamps. I have, in the human subject, had a successful case where a free evacuation of the bowel followed the operation within twenty-four (24) hours, and occurred daily thereafter. Post-mortem examination after thus excising gangrenous intestine, the result of strangulated hernia, has uniformly demonstrated good union and no leakage at the intestinal wound.

#### \* Technique of Multiple Amputation.

IN an interesting paper read before the College of Physicians of Philadelphia, Dr. JOHN ASHHURST, Jr., reported a case of synchronous multiple amputation, in which he had amputated the right thigh, left lower leg, and the right forearm. The patient had no bad symptoms and made a rapid recovery.

Dr. Ashhurst gave the following important points in regard to the technique of such operations:

In the first place it is very important that the time occupied by the operations



should be brief; that the operations should be done systematically, so as to keep the patient under the anesthetic as short a time as possible. The next point, perhaps of even more importance is to keep up the temperature of the patient during the operation. I have been led to think that this is, perhaps, of more importance than any thing else. Of course, loss of blood must be scrupulously guarded against, and loss of blood directly causes a lowering of temperature. In this case, hot cans were kept around the patient during the entire operation and, in order to save time, I operated systematically, the tourniquet and Esmarch bandage being both employed to prevent any loss of blood. I began with the most serious injury, and this is, I think, a point of importance. It may happen that, after the removal of one limb, it will be found that further operation must be postponed on account of the patient's condition, and then it is, of course, better to leave him with less severe injuries. In this case, I began with the thigh. After amputating the limb, I secured the main vessels, which were readily found. I attempted to tie the arteries with catgut, but as the ligatures broke I substituted silk, and in order to save time, left both ends uncut. I next amputated the right leg, securing the vessels in the same manner, and then passed to the forearm. I then came back to the right thigh, screwed up the tourniquet and removed the Esmarch bandage, and secured all the vessels that required ligature, then passing to the other limbs in same order as before. After the vessels had been secured in each case, a towel dipped in a hot antiseptic solution was placed between the flaps. The wounds were then dressed in the same order, and in this way the operation was completed in a comparatively short time.

The points which I have mentioned I believe to be of great importance, and I think that much of the disappointment of surgeons from these operations is due to a want of attention to these matters.

I should also say that, in order to preserve the bodily heat, I did not use irrigation during the amputations. I think that this often seriously reduces the temperature; and even in comparatively slight operations where it has been used, I have seen the temperature fall to  $97^{\circ}$  F., and even  $95^{\circ}$ . I think that in any grave case it is better to omit it and to rely upon washing with hot antiseptic solutions before and after the operation. Also, the packing of wet towels around the seat of operation, as is very commonly done, tends to depress the temperature, and in grave cases should be omitted.

I think that it is to an observance of these precautions that I have owed success in this case, and in many other serious operations of various character.

Certainly nothing in surgery is more universally known than that reduction of the heat of the body below the normal standard is attended by a depression of vital force, and yet how very common it is among both physicians and surgeons to depend upon stimulants administered internally or hypodermically to counteract this. The fact that such stimulation must necessarily be followed by sedation is often overlooked. A "good drink of whisky" throws the blood to the surface where the cooler atmosphere can abstract heat. Caloric in the human body is not different from that found elsewhere, and, we have no more efficient and rapid method of supplying a lack of it in the body, than by applying hot bottles, hot water bags, hot bricks and the like to the surface. The use of hot antiseptic solutions, before,

during or after the operation does not lower the temperature while they are being applied, but unless the part be made thoroughly dry immediately after the application is discontinued, evaporation will abstract heat very rapidly from it.

While the cut surfaces are being exposed to the air to check capillary hemorrhage (a method used by many surgeons), the patient is often left lying on the operating table with very little covering.—*Weekly Medical Review*.

#### **Tension, as met with in Surgical Practice.**

IN his first lecture (*Lancet*) before the Royal College of Surgeons of England, THOMAS BRYANT said that the word "tension," as employed in surgical work, and especially in clinical work, most frequently means the pressure brought about by the stretching or distension of tissue from either the growth of some neoplasm or the effusion of some fluid. In this sense, it means the distension or stretching of parts by a force acting from within—by centrifugal pressure, as it may be rightly termed. But it is, he says, applied in another way; that is, to the stretching of tissues which have been divided and brought together by sutures, the strain upon the sutures from the elasticity of tissues being the measure of the tension.

The effects of tension will, he says, be found to vary according to the nature of the tissues subjected to its influence. In one of an elastic kind, which yields readily under distension, the effects of tension are neither much felt nor well displayed, unless the expanding or distending force is carried to its full extent; whereas, in a tissue which is unyielding and inelastic, the mildest distending force is resented, and the effects of tension are forcibly demonstrated. Again, when the distending or stretching

medium acts rapidly, the tension brought about in the tissues is severe, the symptoms associated with it are serious, and its effects destructive. On the other hand, when the distending, stretching, or straining medium acts slowly, tension is seen acting at a lower level, its symptoms are modified in intensity, and its effects qualified. As a general rule, the severity of the effects of tension, as well as the severity of the symptoms which characterizes its different degrees, is found to turn upon the acuteness of its action and the elasticity of the tissues implicated. To this rule, however, there are exceptions.

The ultimate effects of tension upon any tissue turn then, he says, upon the elasticity of the tissue and the rapidity with which the tension has been brought about; but they are invariably destructive. Its immediate effects are primarily upon the circulation, especially the venous; and the pressure from within of necessity tends to bring about first a slowing of the capillary blood current through the stretched parts, and, later on, its stagnation, from which the death of tissue follows.

The one subjective symptom of tension is pain, which is always found to vary with the degree of tension to which the tissues are exposed, and the quality and quantity of the nerve supply to the part.

As to the diagnosis of tension, he says that in superficial structures it may, as a rule, be readily estimated by palpation. In deeper parts, this may be difficult; in bone or in the cranial cavities, it is impossible. The aspect of a tense tissue helps diagnosis; its palpable enlargement as compared with the opposite and unaffected part, and its stretched appearance, being suggestive. In such a joint as the knee, this condition can be well observed. But when the tense

tissue is well covered with soft parts, as in a femur the seat of periostitis, this observation cannot be made; but even there the enlargement of the part, and the engorged veins visible upon its cutaneous surface, are of diagnostic value as indicative of deep pressure.

Mr. Bryant reports a number of interesting cases which illustrate the various ways in which tension may occur, and their diagnosis and proper treatment.

He concludes his second lecture (*Lancet*) with the following propositions: 1. The pain associated with every form of inflammation of the bone or of its periosteal covering is due to tension, and the severity of the pain is a fair measure of its intensity. 2. In acute inflammation of the bone or of its periosteum, tension is the chief cause of necrosis; and, in the subacute and chronic forms, it is a potent cause of their chronicity as well as of the destructive changes which, as a rule, follow. 3. The relief of tension, wherever met with, when the result of inflammation is an important principle of practice which should always be followed. In bone, the principle is most imperative, on account of the difficulties under which natural processes act in that direction, by reason of the absence of elasticity or yielding in bone, and by reason of the anatomical arrangements of its vessels, which favor blood stasis. 4. To relieve tension in the softer tissues of the body, the local application of leeches, local or general venesection, acupuncture, aspiration, punctures, and incisions may be requisite; whereas, to carry out the same practice in endostitis or periostitis, subcutaneous or open incisions down to the bone, and the drilling, trephining, or laying open of bone by a saw, may be required, the choice of method having to be deter-

mined by the requirements of the individual case. 5. In the early or hyperæmic stage of inflammation of bone, before destructive changes have taken place, experience seems clearly to indicate that the relief of tension—as indicated by a dull aching pain, etc.—by means of drilling or trephining into bone, may arrest the progress of the disease and help toward a cure by resolution; whereas, in the exceptional cases in which this good result does not take place, suffering is saved and destructive changes are limited. 6. In articular ostitis of every kind and variety and in every stage, this mode of treatment cannot be too strongly advocated, as tending toward the prevention of joint disease. 7. In acute or chronic abscess of bone, diaphysial or epiphysial, the abscess cavity must be opened as any other of the soft parts, drained, and dressed in the most appropriate way—the principles of treatment being the same in hard or soft tissues, although they are modified by the anatomical conditions.—*Medical and Surgical Reporter*.

#### The Possibility of Determining some Important Topographical Relations in the Temporal Bone from the Form of the Skull.

KOERNER (*Arch. of Otol.*) began his investigations with the object of determining whether there was not some way of foretelling whether any given temporal bone was or was not likely to be a dangerous one to operate on in cases where that was deemed necessary. In dolichocephalous skulls the lateral walls are almost perpendicular to the base, so that the distance between the mastoid processes, on the outside, is about the same as that between the parietal tuberosities, because the lateral walls converge from above downward. The angle formed by the upper side of the pyramid

and the squamous portion of the temporal bone, or the lateral wall of the skull, is in each case nearly a right angle. Hence in dolichocephalous skulls this side of the pyramid is almost horizontal, while in brachycephalous skulls it ascends sharply from without inward. These variations in the topography of the temporal bone were found to be so plain that Koerner was led to investigate the question whether the exact situation of the floor of the middle cranial fossa and the course of the transverse sinus in the temporal bone depended in any way on the form of the skull. His examinations were made on 120 temporal bones from the skulls of 38 different races, and of 22 that were exclusively German, all sawn through the median plane. Koerner was convinced that certain easily obtained measurements gave such sufficient information in regard to the form of the skull as would enable one to decide on important anatomical relations in and about the temporal bone. If the distance between the bridge of the nose and the most prominent point of the occiput, and then the distance between the parietal protuberances, are measured with calipers, and if then the first measurement is divided by the second, a number is obtained, which Koerner calls an index. This index varied in his collection between 1.55 and 1.07. In skulls where the parietal protuberances are absent the superior and posterior angle of the origin of the temporal muscle should be regarded as an equivalent point. In order to compare the varying situation of the floor of the middle cranial fossa and the transverse sinus, we must keep invariably to unalterable points on the skull. These points are : First, the most anterior portion of the linea temporalis ; second, the upper end of the porus acusticus

externus; third, the spina supra meatum. The next point to be established is the boundary line between the floor itself and the lateral wall of the fossa. The results of Koerner's measurements showed that the floor of the middle cranial fossa in dolichocephalous skulls lay higher above the porus acusticus externus and the spina supra meatum than in brachycephalous skulls. Thus it is seen that, if we know the index of any skull, the table of measurements will assist greatly in determining the location of the floor of the middle cranial fossa. If we imagine a straight line projected through the outer and lower angle of the bony orbit and the upper margin of the porus, the floor of the middle cranial fossa, at least in the mastoid region, will be found to lie as high above this line as above the porus itself. In a well pronounced dolichocephalous skull the linea temporalis may pass through the field of operation, and here we should utilize the space above as much as possible, in order to obtain a large orifice for the operation, and a good view into the bottom of the cavity. The operation is much more difficult in well marked brachycephalic skulls, because when the petrous bone lies higher as we proceed inward, and when the middle cranial fossa is deep, we are sure to find that the antrum lies high. We must therefore chisel obliquely, because the summit of the excavation ought not to lie any higher than the upper part of its external margin. Hence, in every operation on the mastoid it is desirable to begin as far forward as possible. It should not be forgotten that the transverse sinus occasionally advances so far forward and outward into the mastoid process that it may in some cases absolutely prohibit the operation. This, however, is rarely met with except in brachycephalous



skulls with a deep middle cranial fossa. Koerner's measurements show that the sinus lies farther outward in the brachycephalous skulls than in the dolichocephalous, and that it lies farther outward on the right than on the left, independently of the form of the skull. The smaller the index, the farther forward the opening should be made; if the patient is an adult, with an index of 1.30 or less, we ought to operate, if possible, in front of the auricular attachment, especially if the right antrum is the one involved.

#### **Varicose Ulcers Cured by Salicylate of Bismuth.**

PROFESSOR DESPLATS, of Lille, has employed this substance with success and this leads him to suppose that these ulcers are kept up by the presence and multiplication of micro-organisms. A case he cites is that of an enormous ulcer, dating back fifteen years and developed on a leg whose nutrition was profoundly altered. The patient was obese and yet a cure was effected in five days. The ulcer and the leg were washed in a 1-1000 bichloride solution, the ulcer then being filled with an ointment of salicylate of bismuth and beyond its edges. Over this cotton bathing and a bandage. I have substantially used the same method with success, but did not obtain a cure in such a short time.—*World's Medical Review*.

#### **The Treatment of Round Shoulders.**

DR. STILLMAN says, in *Archives of Pediatrics*:

Physical treatment involves the employment of such exercises and movements as will conduce to the proper strengthening of the deficient muscles, and also tend to diminish the deformity itself. The first exercise to which your attention is called necessitates the use

of a table. For this purpose employ either a table, or lounge, or couch, the surface of which is padded or covered so as to be comfortable to the patient, and it should be low so as to divest the patient of all fear of falling while undergoing the exercise. The patient should place himself or herself in the extension position—i. e., the edge of the table should come to the central dorsal region, the patient lying upon his back, and the head and upper extremities should hang over into space. When this position is assumed, it will be seen that the chest has a tendency to resume its normal shape, that it loses its contracted appearance and that the shoulder blades tend to approach each other. To approximate the shoulder blades still further the patient may clasp the hands together behind the back, and while undergoing this process it will appear that the skin and tissues of the anterior portion of the thorax are stretched as much as their structure allows, and that posteriorly, the soft parts become relaxed. Dumb-bells of various sizes are now taken in the hands, and a series of rapid lateral movements practised, which still further expand the chest. There are quite a number of calisthenic exercises which are of advantage if practised in this horizontal backward traction position, but they must be employed with care and moderation, as their expanding effects are so powerfully augmented by gravity that they may strain the tissues painfully and thus delay treatment.

#### **The Treatment of Sebaceous Tumors.**

MANY people, the subjects of congenital sebaceous tumors and "wens" object to having them removed, on the score that the remedy is worse than the disease, and the after consequences may be serious. The following is the

method I have adopted in such cases, and with marked success. With a cataract knife (Graefe's) puncture the cyst, and gently squeeze out the contents; then introduce a small piece of nitrate of silver. On the following day, by means of a pair of forceps, the capsule of the cyst can be withdrawn, just like the shell of a bean, without any portion being left adherent. In no case has there ever been any return of the growth or any ill effects. The method, if tried, will be found to have many advantages apart from its simplicity. —*British Medical Journal*.

#### **Recurrence of Malignant Growths after Removal.**

At the recent meeting of the French Surgical Congress, perhaps the most important question discussed was the recurrence of malignant growths after extirpation. M. CAZIN, of Berck-sur-Mer, introduced the subject by giving a summary of the results of operations which he had performed from 1862 to 1886. During these twenty-four years he had removed no less than 564 tumors; including myxomata, chondromata, and sarcomata, besides true cancerous growths. In 102 cases of scirrhus of the breast, there was secondary glandular affection in 60; of these 7 were permanently cured, in 48 recurrence took place, 3 died, and in 2 the result was unknown.

Among the remaining 42 cases, in which the glands were unaffected, there were 8 cures, 28 recurrences, 2 deaths, and 5 were lost sight of. In 120 cases of encephaloid, the glands were involved in 80; of these 5 were cured, the disease returned in 67, 4 died, and 4 could not be traced. Thus, in a total of 222 cases, there were 28, or 12.6 per cent., permanent cures.

Taking the scirrhus cases separately,

we find that the total number of cures was 15, or 14.7 per cent.; but of those in which the glands were affected, only 7 out of 60, or 11.66 per cent. were cured, while of the others, in which the disease was limited to the breast, permanent cure was obtained in 8 out of 42, or a fraction over 19 per cent.

Among the 120 cases of encephaloid, 13, or 10.8 per cent. were cured; but of the 80 in which the glands were involved, the proportion of cures was only 5, or 6.25 per cent., whilst of the 40 in which there was no glandular enlargement, no fewer than 8, or 20 per cent. were cured.

In the cases in which recurrence took place, the disease returned from three months to seven years after the operation. This statement, it is to be presumed, applies to the whole mass of cases taken together, and not to the cancer group alone. M. Cazin is right, we think, in looking up these results as fairly satisfactory in the present state of surgical science, and he attributes his success to the freedom with which he removes apparently healthy tissues surrounding the growth, and to the care with which he seeks for and removes not only diseased glands, but the lymphatics between them and the tumor. He is not content with exploring the axilla, but makes minute search in the subclavicular region, behind the clavicle, and in the supraclavicular fossa. —*British Medical Journal*.

#### **Perro's Method of Reducing Strangulated Inguinal Hernia.**

G. S. PERRO uses the following method: After the pelvis has been raised on a pillow, and the thigh flexed and abducted, the operator grasps the scrotum and the hernial tumor, bends it slightly against the wall of the abdomen, and presses upon it in such a way that the

index finger of the right hand is carried into the inguinal canal, and in the direction of the horizontal ramus of the pubes by a turning and boring motion; in a short time the strangulated part slips back into the abdominal cavity, and the other part follows. By this method Perro has succeeded in reducing six cases of strangulated hernia, after his colleagues had spent from twelve to thirty hours in vain attempts at reduction.—*Centralblatt für Chirurgie*.

#### Treatment of Sprains.

DR. C. A. WEST (*Chicago Medical Times*):

Every doctor has been perplexed with the treatment of sprained ankles or wrists or knees. The treatment must often be prolonged, and the pain and swelling often remain for a long time, until the patient, who is apt to be an active, restless, healthy business man, becomes no longer patient, or your patient, as he consults some other medical man, who may inform him that his great mistake was in not consulting him at first, as all valuable (?) measures have been neglected.

Liniments in these cases are of but little use. Relief from pain is the first essential to be procured in a way which will further the process of cure. This may be done by stimulating the circulation of the part, thus preventing blood stasis and engorgement about the part. Immerse the injured joint in hot water, or hot salt and water, for from twelve to eighteen hours if necessary. As soon as the major portion of the swelling and the pain has abated, apply to the afflicted part a light plaster-of-Paris, or starch dressing, to insure immobility, and be assured that the cure in most cases will be very speedy and remarkably satisfactory. The writer has tried this in several cases, and he has yet to

have a single unsatisfactory result. The only remedy necessary, if any is used, is arnica, diluted with five parts of water or sweet milk applied for a few hours before the permanent dressing.

#### Antiseptic Bandages.

THE inefficacy of bandages, etc., prepared with sublimate alone has led Dr. LAPLACE to examine into the causes which produce this condition of things. He has determined that the chief reason is the formation of insoluble albuminate of mercury by decomposition of the bichloride in contact with the cloths and materials used in their preparation. This may be avoided, as he has demonstrated, by the presence of an acid in the sublimate solutions used for asepticizing the bandages, gauze, etc., and of all the acids with which he experimented, tartaric acid seems to be the best. When this acid is added to sublimate solutions, not only is the formation of albuminates avoided, but the antiseptic effects are increased in a remarkable manner—thus enabling a smaller percentage of sublimate to be employed; and, moreover, so fully answering all demands that the collateral use of iodoform, etc., is rendered entirely unnecessary. The acid solution is also less irritating to wounds. The following are Laplace's formulæ, as gleaned from *La Gazzetta degli Ospitali*: Take of bichloride of mercury, 1 part; tartaric acid, 5 parts; distilled water, 1000 parts.

This solution is for irrigations, etc.; but when antiseptic bandages, gauzes, etc., are to be prepared, the following is recommended: Take of bichloride of mercury, 5 parts; tartaric acid, 20 parts; distilled water, 1000 parts. Mix.

The material should be submerged in the fluid and left there for at least two hours. We would suggest that the softness and suppleness of the bandages,

etc., would be very much increased by the addition of a small amount of glycerin, say one part to each hundred parts of water.—*National Druggist*.

#### Listerine.

A COMPOUND has recently been introduced under this name as a surgical dressing, and has attained considerable popularity in America. According to *Fortschritt* the following formula gives a preparation closely resembling it: Benzoic acid, borax,  $\bar{a}\bar{a}$  2 drams; boric acid, 4 drams; thymol,  $\frac{3}{4}$  drams; eucalyptol, 10 drops; oil of wintergreen, 10 drops; oil of peppermint, 6 drops; oil thyme, 2 drops; rect. sp.,  $5\frac{3}{4}$  fl.oz.; water to make 31 fl.oz.—*Chemist and Druggist*.

#### On Treatment of Wounds of the Palmar Arch with Shot-bag Pressure.

DR. M. REECE gives the following history of an interesting case in the *Medical and Surgical Reporter*, of June 23, 1888: Mrs. H. cut the superficial palmar arch of the left hand, on the radial side, while opening a can of fruit. The bleeding was considerable, and was arrested for a time with compression applied by the husband. The next day the hemorrhage recurred to such an extent that a physician was called. The bleeding was again arrested with pressure, but as it was badly borne it was relaxed, and during the night profuse and exhausting hemorrhage took place. By this time considerable swelling and infiltration of the tissues of the hand and wrist had also taken place, and the attending physician, believing it necessary to tie the arteries at the wrist, I was sent for in consultation.

Upon arriving at the patient's home, I found the doctor had remained all night, for the reason that the amount of pressure applied caused so much pain that it had to be frequently removed,

and then the bleeding would begin immediately. The patient was a spare woman, anæmic, and very nervous.

A small bag, four inches in length and two and a quarter inches in width, was made and filled with bird-shot. The fore-arm was placed on an elevated pillow, and the shot bag placed lengthwise on the wrist over the arteries. The pressure was well borne, giving no pain or uneasiness. The wound began to heal rapidly, and in four days the weight was removed, and no tendency of the bleeding to show itself was manifested.

#### A Salve for Burns.

A SALVE for burns, said to be most excellent where the blisters are not broken, is made, according to the *Droguisten Zeitung*, by adding 1 part of creasote, 2 parts of bone black, and 3 parts of rectified spirit to 24 parts of spermaceti salve.—*National Druggist*.

#### VENEREAL DISEASES.

##### Lotion for Abrasions of the Genitals.

THE following is strongly recommended: Dissolve in a pint of hot water two drams of borax and add twenty drops of essence of peppermint.—*St. Louis Medical and Surgical Journal*.

##### Benzine.

FOR cleaning of smegma, and greasy applications used in treating balanitis and similar conditions, there is nothing equal to benzine. The application is painless and it cleanse the surface without rubbing. It also seems to have a curative effect upon ulcerations.—*Ibid*.

##### Mercurial Ointment.

NUMEROUS as are the methods that have been suggested for hastening the extinction of the mercury in the preparation of mercurial ointment one more has



been put forward by M. JACQUEMAIRE. (*Journ. Pharm. Chim.*) It is based upon the use of a substance having some affinity for both the mercury and the fat, a condition that is fulfilled by either potassium or sodium, the former being preferred. 1 part of potassium to 100 parts of mercury is found by M. Jacquemaire to be sufficient, and he maintains that this quantity does not materially affect the final product, the mercury not being modified, while the partial saponification of the lard is insignificant. The mercury is first warmed to drive off traces of water and the potassium is added in small fragments. A slight crepitation shows that combination has taken place, and the mass is stirred with a glass rod to diffuse the resulting amalgam equally. The metallic mixture is then added to the fat and the whole beaten vigorously. The extinction is said to be perfect in ten minutes.—*Pharmaceutical Journal and Trans.*

#### Successful Treatment of Syphilis.

DR. GEORGE HOWE (*Louisville Medical Herald*):

The results of another year's use of succus alterans finds me, if possible, a more enthusiastic advocate of its use in all stages of syphilis.

Among those cases which have come under my care is one which may be of more than usual interest:

Mr. B. C. came to New Orleans in December, 1886, to attend to some business, which kept him here about three months. He had been suffering from syphilis for nearly six years, and had been under the care of eminent practitioners in his native state for a long period. Changing his residence to another State, he was again under medical care. He had been repeatedly mercurialized, iodized, and, in fact, had gone through a regimen of treatment

and diet which was heroic in the extreme. Among other remedies, iodide of potassium had been administered until he was taking the enormous amount of seven hundred grains daily. He is of more than ordinary intelligence and had kept a record of the doses and their gradual increase until the amount, a little exceeding 1200 grains daily, was taken for some time.

When he came to me his condition was such as would have enlisted the sympathy of any one. About five feet eight inches in height, and weighing one hundred and fifteen pounds—a countenance expressive of suffering and the utmost resignation to a life of continued torture—impaired digestion by day and osteocopic agony at night—in fact, the most unpromising case I had ever seen.

With some difficulty he was persuaded to use succus alterans in a methodical manner, and at once began to take it in 3ij doses three times daily. A few days after, he returned and desired some relief from the pains, nocturnal and diurnal, caused by nodes in formation and those already fully developed.

He was advised to use a 4 per cent. solution of cocain. Hydrochlorate, painted over each seat of pain, and half an hour after its application, to paint the same surface with tinct. iodine. Immediate relief followed, and it was not necessary to use it more than once during the night, except on one occasion. This treatment gave such relief as to permit its being discontinued after about ten days. He was also advised to use 15 gr. potas. iodide during the day, taking 5 gr. with each dose of succus. This was followed for one month, then the potas. iodide was dropped, and the treatment confined to succus alone. At the end of the second month he began (February, 1887,) the maximum

$\bar{3}$  ss dose and kept it up till September, 1887, then, at my suggestion, reduced the dose  $\bar{3}$  j three times daily.

About November 20, 1887, he returned to New Orleans, and called on me. I did not recognize him in his improved appearance. He has never suffered from the osteocopic pains since nearly eleven months, has increased in weight, and his complexion and general appearance indicate a return to health. He will continue succus alterans for six months longer in  $\bar{3}$  ss doses, twice daily for two months, then very gradually reduce to  $\bar{3}$  j twice daily. This case alone has been so complete a success that I do not hesitate to advise succus alterans in all stages of syphilis.

#### Prevention of Syphilis.

THE Paris correspondent of the *Medical Press and Circular* states that M. FOURNIER has presented to the Academy of Medicine the report of the Committee appointed to inquire into the best means of preventing the spread of syphilis. The following are the principal articles: 1. The Academy calls the attention of the authorities to the development to which prostitution on the streets has grown, and demands that energetic means be taken to repress it. 2. The legion of wine shops only assist clandestine prostitution and should be suppressed. 3. A strong and active surveillance should be exercised in the neighborhood of the colleges, where temptation is rife. 4. A girl proved to be contaminated should be sent to a special sanitary hospital, from which she should not be discharged without being furnished with a medical certificate; at the same time the rules of the hospital should have in nowise the stringent character of the present St. Lazare. 5. The registered women should be visited regularly once a week and once a

month by a medical inspector. 6. Instead of increasing the number of beds in certain hospitals in which venereal diseases are treated, new special hospitals should be created outside the walls of Paris, to which free dispensaries should be attached. 7. Every student of three years' standing should have free access to all these institutions, and before presenting his thesis he must produce a certificate justifying a three months' stage in one of these services.—*Medical and Surgical Reporter.*

#### Lafayette Mixture.

THE Lafayette mixture as recommended by Bumstead (1870), is as follows:  $\mathcal{R}$ . Copaibæ,  $f \bar{3}$  j; liq. potassæ,  $f \bar{3}$  ij; ext. glycyrrhizæ,  $\bar{3}$  ss; spir. æth. nitrosi,  $f \bar{3}$  j; syrupi acaciæ,  $f \bar{3}$  vj; olei gaultheriæ, gtt. xvj. Mix the copaiba and the liquor potassæ, and the extract of licorice and sweet spirit of nitre first separately, and then add the other ingredients. Dose.—A teaspoonful after each meal.

Dr. Keye's modification of this formula is as follows:  $\mathcal{R}$ . Potassæ citratis,  $\bar{3}$  ij-vj; bals. copaibæ,  $f \bar{3}$  iij-vj; ext. hyoscyami fl.,  $f \bar{3}$  ss-ij; syr. acaciæ,  $f \bar{3}$  iss; aq. menth. pip., q. s. ad.,  $f \bar{3}$  iij. M. Sig. —Shake. Teaspoonful in water.—*Ibid.*

#### Infertility in the Male.

INFERTILITY in males may be due either to azoospermia (absence of spermatozoa) or aspermia (absence of emission). The product of emission consists, as is well known, of a mixture of three secretions, from the testicles, the seminal vesicles, and the prostatic glands. Dr. Fuerbringer has remarked that the testicles only produce motionless spermatozoa which become animated on admixture with the prostatic secretion, the importance of which as a factor in sexual importance has been generally over-

looked. According to some recent observations the prostatic glands secrete a milky, but non-viscid liquid, holding in emulsion a number of globular bodies, half the size of red blood corpuscles, and composed of lecithin. It is this secretion that gives the characteristic odor to the seminal emission, the other constituents being devoid of smell. The stimulating effect of the prostatic secretion is only exercised on viable spermatozoa, and it has no influence on those which for one reason or another are "dead." In several cases of young men whose semen contained these motionless spermatozoa, the latter became active enough on the addition of some prostatic secretion, the defect being thus evidently due to a want of it. Azoospermia proper is very rare, and when present is due either to atrophy of the secreting organs or occlusion of the vas deferens consequent on double epididymitis or gonorrheal funiculitis. This affection no treatment can relieve, but aspermia, depending as it often does on stricture of urethra, may be cured by removal of the stricture.—*Medical Press.*

#### The Value of Antiseptic Precautions in Internal Urethrotomy.

THE dangers of the operation itself are, the author, Dr. B. CLARKE, maintained, dependent on septic fever; and it depended either on self-infection from a septic urethra or on dirty instruments. The latter source of infection could be easily guarded against by the thorough cleansing of instruments and catheters, whilst the purification of the urethra was no easy matter. To effect this, however, as far as possible, the urethra should be irrigated with sublimate 1 in 2,000 for several days beforehand, and when the stricture has been divided, the bladder should be washed out with a similar solution, and then with hot water

at a temperature of 105° F. After this a catheter should be tied in for twenty-four hours. By this means the urine came very little in contact with the urethra, and septic infection was avoided. Fifteen cases were related in which the plan had been tried by the author, and he alluded to some others in which he had suggested the plan to other surgeons. The results were very successful.—*British Medical Journal.*—*Analectic.*

#### DISEASES OF THE SKIN.

##### Acute Circumscribed Œdema Cutis.

A STUDY of this affection by G. RICHL will be found in the *Wien. Med. Presse*. This disease is known also as giant urticaria, acute angeio-neurotic œdema, and *urticaire massive*. It is marked by disturbances of the general health and of the bowels, and by peculiar manifestations upon the skin, all of which are dependent upon a common cause. The most prominent symptom, and sometimes the only one, is the acute appearance and rapid disappearance of œdema of the skin, subcutaneous tissues, and certain mucous membranes. The eruption appears without cause or prodromes, and reaches its height in from one to three hours. It consists in an œdematous swelling without any inflammation, which shades off into the sound skin, is hard or firm to the touch, preserves for a time the finger print, is of normal color or transparent white or red, and may attain the size of the hand or larger. The epidermis is stretched and glistening. The temperature of the part is normal; the sensibility is somewhat reduced; there is no pain. There is some burning and tickling, but seldom itching. The average duration of a single efflorescence is twenty-four hours. There is usually a single lesion to each attack, though there may be a number

of lesions, or a single lesion may spread, creeping slowly along. The pharynx, larynx, or nose may be similarly attacked, and so much dyspnœa caused as to require tracheotomy. The trunk is seldom attacked. The disease relapses from time to time, lesions at first appearing in different places, but afterward tending to recur in the same place. The frequency of the attacks is variable; sometimes the patient will remain free for a time, to have new attacks at intervals of eight to fourteen days, or even every three or four weeks. The duration of the disease may be weeks or years. The oft-repeated œdema may lead to permanent stretching of the skin, or to a slight thickening of the same. In some cases vomiting, somnolence, constipation, suppression of urine, or albuminuria may be prominent symptoms. It occurs at all ages and may be inherited. The cause of the disease is unknown. It is probably a vaso-motor disturbance originating in the central nervous system. It differs from ordinary urticaria in the marked absence of itching. Treatment has thus far been in vain.—*N. Y. Medical Journal*.

#### Pruritus Pudendi.

MAY be successfully treated, according to ROUTH (*British Med. Jour.*), by bathing with a solution made by putting a teaspoonful of borax into a pint of hot water, shaking thoroughly, and adding five drops of oil of peppermint. If there are any excoriations, or if eczema is present, this will cause too much smarting, and it is better to substitute for it olive oil, with five grains of iodoform to the ounce.—*Ibid*.

#### Senile Pruritus.

BESNIER (*Journal de Méd.*) recommends for this troublesome affection starch baths, and sponging the whole

body every evening with a spoonful of a mixture of aromatic vinegar, 250 grammes, and carbolic acid, 5 grammes, to a bowl of hot water. Then the body is to be powdered with a powder of starch, 90 grammes, and salicylate of bismuth, 10 grammes. Salicylic acid may be substituted for the bismuth.—*Ibid*.

#### Seborrhœa.

IN his Atlas of Venereal and Skin Diseases, Dr. P. A. MORROW recommends the following treatment for seborrhœa of the scalp: First loosen all crusts; then shampoo with spiritus saponis kalinus and warm water and dry. After this apply the following ointment:  $\mathcal{R}$ . Acidi tannici, 3 i; glycerini puri, 3 i; petrolati, 3 ii; ung. aquæ rosæ, 5 j. M. ft. ung. To prevent the reformation of crusts apply:  $\mathcal{R}$ . Sulfuris loti, 3 i; adipis, 5 i. M.

#### Cold Cream.

THE formula which we find in the U. S. Pharmacopœia for making this preparation is as follows: Take of expressed oil of almonds, 50 parts; spermaceti, 10 parts; white wax, 10 parts; rose water, 30 parts.

Melt the oil, spermaceti and wax, and then gradually add the rose water, stirring the mass constantly. I have found that if the quantity of wax be doubled the resulting mass is one of firmer consistency and makes a much better ointment base, as it does not melt so easily. It is stiffer, and a thicker layer can be laid on. To make a delightful and antiseptic "camphor ice," add 10 parts of camphor phenique to the melted wax and fats, instead of the rose water.—*St. Louis Med. and Surg. Journal*.

#### Scarlatiniform Erythema.

THE principal point of interest connected with this affection is that of



differential diagnosis from scarlatina. It becomes a question as to whether the patient shall be confined to bed or permitted to be up and about. Dr. Bourdel details a case, in *La France Médicale*, in which a little girl of seven presented a scarlet eruption all over the body with the exception of the face; not only this, but the pharynx was reddened. Yet there was affection of the tonsils. On the other hand, there was complete apyrexia, the child felt gay, and there was no albumen in the urine. A question which arises is, as to what can be brought forward as a differential sign between a case of this kind (scarlatiniform erythema) and the so called apyretic scarlatina of Cadet de Gassicourt.—*Ibid.*

#### DISEASES OF THE EYE AND EAR.

##### Cocaine and Loss of Vitreous in Cataract Operations.

DR. A. D. WILLIAMS says:

As I have heretofore stated, the greatest benefit we get from the use of cocaine in operating on cataracts is the almost entire prevention of the loss of vitreous. Before the introduction of cocaine the greatest anxiety in cataract operations was the ever present fear of rupture of the hyaloid membrane and loss of vitreous. Cocaine prevents this accident in an indirect way. It kills sensibility, and thus prevents all muscular action. In this way the patient is prevented from squeezing the vitreous out by violent muscular contraction. While killing the pain of the operation is a grand thing, the resulting or secondary effect is the greatest boon. Since using cocaine the loss of vitreous has been the rarest exception. Only very recently I operated on an old man in the usual way. The lens was easily delivered. In manipulating the cornea for the purpose of clearing the anterior

chamber of all particles of lens substance, suddenly and unexpectedly a bead of vitreous popped up. I had to desist to allow the remains of the lens to be absorbed away. Had there been no cocaine used in this case the loss of vitreous would certainly have been "frightful," and very likely destructive. The patient made a rapid recovery and had a good result. This so far as I remember, is the first loss of vitreous I have had since using cocaine.—*St. Louis Med. and Surg. Journal.*

##### Iritis.

PROFESSOR KEYSER considers this a most excellent antiphlogistic in iritis.  $\mathcal{R}$ . Hydrargyri chloridi corrosive, gr.  $\frac{1}{20}$ ; extracti belladonnæ, gr.  $\frac{1}{10}$ ; M. in pill, take ten minutes after each meal.

##### Bilateral and Unilateral Total Deafness following Mumps.

MÉNIÈRE (*Rev. Mens. de Laryng. et d'Otol.*) reports two additional cases of unilateral deafness and two of bilateral deafness following mumps. One was in a boy twelve years old, with bilateral mumps, in whom the deafness appeared on the seventh day in the left ear, and was complete. The second was in a girl, eight years old, with bilateral mumps, in whom the right ear became totally deaf on the ninth day. The third was in a boy, fourteen years old, with bilateral mumps who became totally deaf in both ears on the fourth day. The fourth was in a boy, five years old, with bilateral parotitis, who became totally deaf in both ears on the sixth day. All these patients recovered from the parotitis, but remained totally deaf. While admitting the possibility of an affection of the labyrinth, Ménière thinks that the more frequent cause of the deafness is a meningeal hyperæmia, leading to grave lesions of the auditory nerve.—*N. Y. Medical Journal.*

## FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

### A Method of Wiring Fractures of the Patella.

THE best method of treatment of fracture of the patella may be said to be still undetermined, many surgeons clinging to the old methods, claiming for them good results, and maintaining that the operation of opening the joint and wiring the fragments is too dangerous to life and limb to become a recognized method of procedure; others, with full faith in antiseptics, do not hesitate to open the joint and approximate the fragments, claiming to obtain by this operation bony union, with full restoration of function.

While the ideal treatment is that by which bony union with unimpaired function is secured, and while it is a well-known fact that by the old methods bony union is the exception, and functional impairment of the limb a frequent result of too long a ligamentous band between the fragments, still it is a question whether the non-operative treatment, with inferior results, but absolutely free from danger, is not to be preferred to so serious an operation as wiring by the open method.

One of the two features which impair the function of the limb after fracture of the patella may, as has been shown by Tillanus, be removed by massage and exercise of the muscle. If now a safe and certain method of operation can be devised, so that bony union shall be the rule and not the exception, the ideal treatment of the hitherto unsatisfactory fracture will be realized. With this end in view, Dr. W. L. AXFORD has devised a method which seems sufficiently promising and so simple of application as to merit a trial by the profession (*Annals of Surgery*).

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Failure of bony union in fracture of the patella may be attributed to the peculiar blood supply to the bone, effusion into the joint, muscular action, and to the engagement of the prepatellar aponeurosis between the ragged edges of the fragments. Only the latter three elements of failure require to be eliminated, for if the effusion be removed, the aponeurosis cleared away from the fractured edges, muscular contraction overcome, the bony edges held in apposition, and massage of the muscle practiced, bony union should result, if the joint be not infected.

Dr. Axford's method of treating fractures of the patella is as follows: Immediately on the occurrence of fracture the limb should be placed in a posterior splint, and soft sheep's wool applied to the sides and over the front of the knee, and held snugly in place by the roller bandages. If ice water be kept slowly trickling on the bandage, so as to saturate the sponges and keep them well distended, the most potent factors in the prevention of inflammation and limitation of effusion, rest, elastic pressure and cold will be utilized. At the end of forty-eight hours the knee would in all probability be ready for operation. Strict antisepsis should be observed. If the effusion into the joint be so great as to prevent easy approximation of the fragments, it can be removed by Schede's method. Should the fragments still refuse to come together, Bergmann's plan of freeing the bony attachment of the ligamentum patellæ may be resorted to. If, on rubbing the fractured surfaces together, the pressure of the prepatellar aponeurosis seem to present an obstacle to union, it can probably be freed by manipulation of one surface on the other; if not readily removed, there can be no objection to passing a teno-

come into the joint for the purpose of clearing the fractured surfaces. For the purpose of wiring the fragments, a modified Brainard's drill is used. As small a size as is compatible with the requisite strength is made one inch longer than usual, and at the point is provided with an eye large enough to admit a medium sized silver or iron wire. Two such drills are necessary. An assistant holds the fragments firmly in apposition, the drill is entered from above, traverses the bone in the long axis of the limb, emerges from the skin below the patella, is disengaged from the handle and left in position, serving to support the fragments temporarily. The other drill is now passed parallel to the first, from below upward, the wire hooked into the eye, the drill withdrawn, and the ends of the wire twisted over the bone. Drill number one is now armed with wire and withdrawn. A few layers of gauze are placed over the patella, and the ends of the wire pushed through. Over all is placed a cap of hard rubber, leather or felt, perforated for the wires, the ends of which are now passed through, drawn tight and twisted. The Bavarian or open plastic splint may now be applied, and, if any reaction be feared, the sponges may be reapplied, treating the fracture as at first till all danger be passed. Attention should be paid to the quadriceps during recovery.

By this method it is held that the minimum danger of infection is incurred, and a reasonable chance for bony union is secured. Indeed, the joint is not necessarily entered, except for the purpose of getting rid of the effusion, or, perhaps, when the aponeurosis is freed. If the fragments are kept closely approximated during the drilling, the drill will not enter the joint at all.—*Therapeutic Gazette.*

#### Fractured Patella Treated by Wiring.

In a paper read before the Allegheny County Medical Society, Dr. J. J. BUCHANAN gives the following interesting history:

The patient is a German laborer, and his fracture was the result of direct violence, caused by the stroke of a three hundred pound box which fell against his knee. He stated that the accident happened in the middle of the day of June 30th. He continued to do his laboring work till evening, but on the following day found that he was unable to stand on the limb. I suppose that the blow broke the bone, but the capsule held together till evening. When he was brought to the hospital, five days afterward, the joint was considerably distended and the fracture easily recognized, but the lower fragment seemed to be very small. He was informed of the probable result by the use of external appliances, and the advantages as well as the risks attending the method by suture.

The most scrupulous precautions against sepsis were taken. Instruments and appliances were put through the same course of preparation as for laparotomy. Continuous irrigation with 1-2500 sublimate solution was employed, and the transverse incision was made to the full extent of the rent in the capsule. The lower fragment was not larger than a chestnut. The capsule was much lacerated, and a number of narrow shreds hung into the joint. The joint contained a great deal of clotted blood and bloody fluid. The joint was thoroughly washed out and all loose pieces and ragged ends and edges of capsule were cut away with scissors. The fractured surfaces were refreshed by the vigorous use of a curette.

A single hole was drilled through

each fragment, the drill entering about three-eighths of an inch from the line of fracture, and emerging at the cartilaginous border of the fractured surface. As a motive power for the drill, I used the dental engine, which was kindly supplied and manipulated for me by Dr. Charles Phillips, a dentist of this city.

A silver wire of No. 24 gauge was passed. An incision was made into the lower part of the joint on the outside of the limb and a rubber drain inserted, the inner extremity barely entering the joint. The silver wire was then twisted firmly, which brought the fragments into place, and the ends of the wire were turned down between the edges of the apposed fragments. The capsule was closely united over the whole length of the rupture with the continuous catgut suture.

Interrupted silk worm gut stitches were used for the soft parts down to the capsule. Sublimated dressings and a posterior splint completed the work. At the expiration of the third day the drain was exposed and withdrawn. The primary dressing was removed at the end of a week, when the wound of the soft parts was found to be soundly healed and the skin stitches were all taken out. The progress of the case was aseptic, and of course absolutely devoid of pain and discomfort.

At the end of four weeks the patient was allowed out of bed, and at the end of five and a half weeks all dressings were removed and he was allowed to walk upon the limb with the aid of crutches. At the end of six and a half weeks he was permitted to rely on a cane without any support to the limb. When I last examined him, four or five days ago, palpation of the patella gave no evidence of its ever having been fractured. The range of motion is not

yet great, but is rapidly increasing, and will, I doubt not, be completely restored.

#### Medico-Legal Aspect of Wounds of the Heart.

M. SAL. CHARRIN, says the *Bulletin Médical*, has written an interesting thesis based upon the case of a young man who had received a stab wound of the heart, and who, before death, was able to talk and to run ten metres (about eleven yards). At the autopsy it was found that the point of the instrument had penetrated the sternum at the lower border of the third rib on the right side, and opened the right ventricle at its lower part.

The question of surviving such a wound may be very important from a medico-legal point of view. Upon the fatality of wounds of the heart the author gives the following conclusions: In spite of their gravity wounds of the heart may in certain cases be survived a variable length of time, and permit the patient to talk, to defend himself, and in a word to perform voluntary acts. Statistics show that the fatality of wounds of the heart varies with the part of the organ injured. Wounds of the right ventricle, which are the most frequent, are less dangerous than on those of the left, and the latter are less grave than those of the auricles. Statistics show also that this fatality varies with the nature of the vulnerating body. Wounds of the heart made with pointed instruments are the least dangerous; then come wounds by cutting instruments, by fire arms, and, last, wounds of the heart as the result of contusions.

#### Ligation of a Tonsil for Hemorrhage.

DR. E. W. CLARKE, senior assistant surgeon at the New York Hospital: Through the kindness of Dr. T. M.



Markoe, attending surgeon, and Dr. Wm. Gordon, house surgeon, I report the following case of hemorrhage after amygdalotomy, with the method employed to check it: A. M., aged 22, single, German, nurse, well nourished and robust, was received under Dr. Markoe's care on April 6, 1888, suffering from extensive hypertrophy of both tonsils. On April 11th a portion of both tonsils was removed with a volsella and angular scissors. The immediate hemorrhage was moderate and soon stopped. About an hour later I was called to the ward, Dr. Gordon not being in the hospital, and found the patient bleeding freely from the left tonsil, a large amount of blood having been lost already. Glycerite of tannin, a mucilaginous emulsion of turpentine, and styptic cotton were used in turn with no appreciable effect. Paquelin's actual cautery was next used. This served to check the oozing and bring into view a small bleeding artery in the middle of the cut surface of the tonsil. Several applications of the cautery directly to the bleeding point were made, but failed to affect the bleeding. Long clamps, with blades padded with cotton, one blade on the tonsil, the other outside on the cheek, also failed, as they could not be kept long in place on account of pain. By this time the patient had become very weak and pale, with the pulse rapid, feeble and soft, and it seemed to me that unless something radical were done immediately he would soon die from loss of blood; so, as he was very restless and nervous, ether was given, a gag introduced, and as much as possible of the bleeding tonsil seized with a volsella having large, bulging double points. The tongue was then drawn out of the way with a second smaller volsella, and a large silk ligature, with

a double turn in the first knot, thrown loosely around the forceps on the tonsil. With the index fingers the knot was pushed down over the bulging hooks of the forceps on the tonsil, and thus easily around that portion of the tonsil included in them. When an attempt was made to tighten the ligature it slipped off, not having been well adjusted. A second and successful effort was made, with the difference that an assistant was employed to tighten the ligature while it was held about the tonsil with the index fingers as before. To make it more secure, a second turn about the included tonsil was taken, and a double knot tied on this. The long ends of the silk were carried out of the angle of the mouth and secured to the cheek by rubber plaster. The hemorrhage was now checked completely. The ligature came away on the fourth day with no recurrence of the hemorrhage, but a week later, when the patient was discharged to return to his duties, he was still very pale and somewhat weak.

Ligation of a tonsil stump might be done without anæsthesia, but only in special cases where the patient was intelligent and devoid of nervousness. Whether it could be done without assistance I doubt very much, and my success in the foregoing case was, to a considerable extent, due to the efficient assistance of Dr. Merrill, of the house staff.—*N. Y. Medical Journal*.

#### **The Arrest of Hemorrhage from Wounds of the Palm of the Hand.**

DR. R. J. LEVIS (*Coll. & Clin. Record*):

My experience with hemorrhage from wounds of the palmar arches is that it is usually controllable by maintaining extreme elevation of the hand. This is most thoroughly effected, and with the least discomfort to the patient, by ver-

tical suspension of the limb, the attachment being made along the palmar and dorsal surfaces of the fore-arm by adhesive strips, after the ordinary manner of making extension in the treatment of fractures. A cord from the adhesive straps may be fastened to the top of a bed post or other convenient elevated point.

If posture alone should not arrest the hemorrhage, the most effective compression can be made by placing in the palm of the hand an india-rubber ball, or a ball solidly made of cotton wadding, and on this the fingers and thumb should be closed and bound tightly with a roller bandage.

Using these expedients I have never been obliged to ligate arterial trunks for the arrest of hemorrhage from the palm of the hand.

#### **The Treatment of Intestinal Obstruction.**

THERE are few American surgeons who have placed the profession under such lasting obligations for apparently trustworthy deductions drawn from experimental research as Dr. Senn. The rich field of intestinal surgery has been experimentally studied in so thorough a manner that future investigations will not only have to take his results as a starting point, but will have to move along the lines and frequently verify or disprove his questions. The long series of articles which have been appearing in the *Annals of Surgery*, are too voluminous to permit of an abstract, and we cannot do better than give our readers the series of conclusions to which his investigations have drawn him:

1. Traumatic stenosis from partial enterectomy and longitudinal suturing of the wound becomes a source of danger from obstruction or perforation in all cases where the lumen of the bowel is reduced more than one-half.

2. Longitudinal suturing of wounds on the mesenteric side of the intestine should never be practiced, as such a procedure is invariably followed by gangrene and perforation by intercepting the vascular supply to the portion of bowel which corresponds to the mesenteric defect.

3. The immediate cause of gangrene in circular constriction of a loop of intestine is due to obstruction of the venous circulation, and takes place first in the majority of cases at a point most remote from the cause of obstruction.

4. On the convex surface of the bowel a defect an inch in width, from injury or operation, can be closed by transverse suturing without causing obstruction by flexion. In such cases the stenosis is subsequently corrected by a compensating bulging or dilatation of the mesenteric side of the bowel.

5. Closing a wound of such dimensions on the mesenteric side of the bowel by transverse suturing may give rise to intestinal obstruction by flexion, and to gangrene and perforation by seriously impairing the arterial supply to, and venous return from, the portion of bowel corresponding with the mesenteric defect.

6. Flexion caused by inflammatory and other extrinsic causes gives rise to intestinal obstruction only in case the functional capacity of the flexed portion of the bowel has been impaired or suspended by the causes which have produced the flexion, or by subsequent pathological conditions which have occurred independently of the flexion.

10. The immediate or direct cause of gangrene of the intussusceptum is obstruction to the return of venous blood by constriction at the neck of the intussusciptions.

11. Ileocæcal invagination, when recent, can frequently be reduced by

distention of the colon and rectum with water; but this method of reduction must be practised with the greatest caution and gentleness, as overdistention of the colon and rectum is productive of multiple longitudinal lacerations of the peritoneal coat.

12. The competency of the ileocæcal valve can be overcome only by overdistention of the cæcum, and is effected by a mechanical separation of the margins of the valve; consequently, it is imprudent to attempt the treatment of intestinal obstruction beyond the ileocæcal region by injections per rectum.

13. Resection of more than six feet of the small intestine in dogs is uniformly fatal; the cause of death in such cases is always attributable to the immediate effects of the trauma.

14. Resection of more than four feet of the small intestine in dogs is incompatible with normal digestion, absorption, and nutrition, and often results in death from marasmus.

15. In cases of extensive intestinal resection the remaining portion of the intestinal tract undergoes compensatory hypertrophy, which macroscopically is apparent by thickening of the intestinal coats and increased vascularization.

16. Physiological exclusion of an extensive portion of the intestinal tract does not impair digestion, absorption, and nutrition as seriously as the removal of a similar portion by resection.

17. Fecal accumulation does not take place in the excluded portion of the intestinal canal.

18. The excluded portion of the bowel undergoes progressive atrophy.

19. A modification of Jobert's invagination suture, by lining the intussusceptum with a thin, flexible rubber ring, and the substitution of catgut for silk sutures, is preferable to circular enterorrhaphy by the Czerny-Lembert suture.

20. The line of suturing, or neck of intussusciens, should be covered by a flap or graft of omentum in all cases of circular resection as this procedure furnishes an additional protection against perforation.

21. In circular enterorrhaphy the continuity of the peritoneal surface of the ends of the bowel to be united should be procured where the mesentery is detached by uniting the peritoneum with a fine catgut suture before the bowel is sutured, and this modification furnishes a better security against perforation on the mesenteric side.

22. In cases of complete division of an intestine, if it is deemed advisable not to resort to circular enterorrhaphy, one or both ends of the bowels should be closed by invagination to the depth of an inch, and three stitches of the continued suture embracing only the peritoneal and muscular coats.

23. The formation of a fistulous communication between the bowel, above and below the seat of obstruction, should take the place of resection and circular enterorrhaphy in all cases where it is impossible or impracticable to remove the cause of obstruction, or where, after excision, it would be impossible to restore the continuity of the intestinal canal by suturing, or where the pathological conditions which gave rise to the obstruction do not constitute an intrinsic source of danger.

24. The formation of an artificial anus in the treatment of intestinal obstruction should be practiced only in cases where continuity of the intestinal canal cannot be restored by making an intestinal anastomosis.

25. Gastroenterostomy jejunoileostomy, and ileoileostomy should always be made by lateral apposition with partially or completely decalcified perforated bone plates.

26. In making an intestinal anastomosis for obstruction in the cæcum or colon, the communication above and below the seat of obstruction can be established by lateral apposition with perforated approximation plates, or by lateral implantation of the ileum into the colon or rectum.

27. An ileocolostomy, or ileorectostomy by approximation with decalcified perforated bone plates, or by lateral implantation, should be done in all cases of irreducible ileocæcal invagination, where the local signs do not indicate the existence of gangrene or impending perforation.

28. In all cases of impending gangrene or perforation, the invaginated portion should be excised, both ends of the bowel permanently closed, and the continuity of the intestinal canal restored by making an ileocolostomy or ileorectostomy.

29. The restoration of the continuity of the intestinal canal by perforated approximation plates, or by lateral implantation, should be resorted to in all cases where circular enterorrhaphy is impossible on account of the difference in size of the lumina of the two ends of the bowel.

30. In cases of multiple gunshot wounds of the intestines involving the lateral or convex side of the bowel, the formation of intestinal anastomosis by perforated decalcified bone plates should be preferred to suturing, as this procedure is equally, if not more safe, and requires less time.

31. Definitive healing of the intestinal wound is initiated only after the formation of a net work of new vessels in the product of tissue proliferation from the approximated serous surfaces.

32. Under favorable circumstances quite firm adhesions are found within the peritoneal surfaces in six to twelve

hours which effectually resist the pressure from within outward.

33. Scarification of the peritoneum at the seat of coaptation hastens the formation of adhesions and the definite healing of the intestinal wound.

34. Omental grafts, from one to two inches in width, and sufficiently long to completely encircle the bowel, retain their vitality, become firmly adherent in from twelve to eighteen hours, and are freely supplied with blood vessels in from eighteen to forty-eight hours.

35. Omental transplantation, or omental grafting, should be done in every circular resection, or suturing of large wounds of the stomach or intestines, as this procedure favors healing of the visceral wound, and affords a protection against perforation.—*Medical Reporter*.

#### The Exploring Needle in Diagnosis.

DR. HERMAN M. BIGGS (*New York Medical Journal*), arrives at the following conclusions :

1. The employment of the exploring needle is not infrequently attended by considerable danger, and a number of deaths have directly resulted from its use.

2. The indiscriminate, careless and routine resort to exploration with a needle should be condemned. The procedure should not be employed without careful consideration of the conditions obtaining in each case and the result that may follow the puncture. The site for the puncture should be thoughtfully chosen, the puncture carefully made with complete antiseptic precautions, and the smallest needle that will answer the purpose employed.

3. The puncture of collections of fluids with tense walls in relation with serous surfaces should be, as far as possible, avoided, and, if it is resorted to, sufficient fluid should be withdrawn



to relieve the tension upon the walls of the sack. In many cases certainly an exploratory operation would be attended by less danger.

4. In the introduction of the needle into deeply seated infectious matter, the nature of the intervening tissue should be carefully considered.

5. The needle before use should be always thoroughly disinfected, preferably by heating in the flame of an alcohol lamp or a Bunsen burner.

6. The skin where the puncture is to be made should be rendered thoroughly aseptic by first scrubbing with soap and then washing with an antiseptic solution.

7. The dangers attending the use of this valuable adjuvant in diagnosis should not in the slightest interfere with its employment in properly selected cases, where due precaution is observed.

#### Methods of Removing Nasal Polypi.

At a meeting of the Edinburgh Medical Chirurgical Society, Dr. McBRIDE read a paper "On the Methods of Removing Nasal Polypi." (*Medical Press*.) He deprecated the use of forceps—especially without illumination of the nostrils—in this operation as being unscientific, and giving more pain to patients than when a snare is used. He had, after giving it a fair trial, found the electric cautery as a snare and cauterizer of roots unsatisfactory. It certainly lessened bleeding, but this was a convenience, and nothing more. He had also found the electric cautery more painful to the patient than the cold snare. In cases of sessile growths and fringes of small polypi the electric snare was useful. But in cases of ordinary pedunculated polypi he preferred the cold wire snare, and then not for abscission but for evulsion. If the tumor is cut away, a piece of diseased

tissue may be left behind, but if pulled off, it comes away at its point of attachment, and thus is more fully removed. To avoid recurrence, a spray of rectified spirit, as first recommended by Mr. A. G. Miller, may be used, but in some patients its use sets up unpleasant irritation. As a rule, he destroyed the stump either by means of the galvano-caustic burner or with chromic acid fused on the end of a probe. To allay the pain of this operation he used cocaine, or menthol and cocaine, twenty per cent. of each in olive oil. In the case of post-nasal polypi, polypi projecting into the naso-pharynx and resting on the palate, which are usually single and growing from the edge of the choanæ, the snare may sometimes be used from in front, guided by the forefinger of the left hand in the pharynx; in other cases the snare must be applied from the pharynx, and when thus applied the advantage of evulsion of the tumor is apparent. These tumors seldom recur.

Mr. Duncan thought Dr. McBride had been too severe on the use of the forceps. He did not think the difference between snare and forceps of much moment. Probably he preferred the forceps because he could take away more polypi with it, and the operation took less time. The amount of pain given was really a question of delicacy of manipulation. He also found he could remove naso-pharyngeal polypi more easily with the forceps than the snare; with the finger in the pharynx the forceps could be properly guided to the spot. Of the solitary polypi to which reference had been made, he had met with three or four examples. They usually occurred in young people; they projected posteriorly, were somewhat firmer than ordinary mucous polypi, pedunculated and easily separated.

They differed greatly from the fibrous polypi which grew from bone, and appeared to be analogous to pedunculated fibrous polypus of the rectum.

Dr. McBride, replying, said he did not altogether condemn the forceps, but rather the blind use of it, which was so common, and which he did not think Mr. Duncan would defend. As to the question of pain, he drew his conclusions from the statements of intelligent patients, who said the snare was less painful than the forceps. For impatient patients the forceps was certainly quicker, but he doubted if it were better for them, as usually no attempt was made to prevent recurrence of the polypi. He was inclined to look upon the solitary polypi as midway in structure between ordinary mucous and fibrous growths.

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#### VENEREAL DISEASES.

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##### The Use of Calomel Oil and Oleum Cinereum Hypodermically in the Treatment of Syphilis.

BENDER has employed both these preparations for the hypodermic treatment of syphilis, and now (*Vrtljschr. f. Derm. u. Syph.*) compares their relative action. He has seen stomatitis follow the use of oleum cinereum quite as often as that of calomel oil. The duration of treatment was about the same for each. The pain caused by the oleum cinereum seemed somewhat the more severe of the two, and more or less marked infiltration always occurred. The injections were made every third day or twice a week, and only a part of a syringe-ful was injected at a time. But in private practice we are recommended to inject a whole syringe-ful every eight to fourteen days. (The strength of the mercury in the oil is twenty per cent.—that is, a cubic centimetre of the oleum

cinereum contains 0.23 gram of mercury). Abscess occurred in one case treated by oleum cinereum, but was never met with from the calomel oil. The effect of both was prompt, and Bender has a high opinion of the hypodermic treatment of syphilis.—*N. Y. Med. Journal.*

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#### Myositis Syphilitica

HAS been found by NEUMANN (*Vrtljschr. f. Dermat.*) to affect the sphincter ani more frequently than any other muscle and at an earlier stage of the disease, and to give rise to much greater pain and disturbance of function. Its symptoms are pain and tenesmus during and after defecation, which may in severe cases last for hours. The pain is aggravated by pressure from without. Women are more often subjects of the disease than men. The whole muscle is not affected; sound bundles of fibres may be found among the diseased ones. Both the blood vessels of the perimysium and the nuclei of the sarcolemma are involved in the inflammatory process. As the affection of the sphincter may last long after the other symptoms of syphilis have disappeared, we may have to treat the contraction of the muscle and the consequent pain by sphincterotomy. In the tertiary stage of syphilis, symptoms of paralysis of the muscle are more prominent, the sphincter being incompletely closed.

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#### Salicylate of Mercury.

SZADEK (*Monatshft. f. prakt. Derm.*) has been experimenting with this comparatively new preparation of mercury in the treatment of gonorrhea and syphilis. He believes that it is no less efficacious in syphilis than the other preparations of mercury, and that when given by the mouth it is well fitted to cure mild cases. It is an excellent and active salt of mercury for intermuscular

injections. Neither by the mouth nor hypodermically does it cause the least disagreeable local disturbance. It is useful as a local application to various syphilitic infiltrations and ulcerations, bringing them to absorption and cicatrization. In urethritis it acts well and promptly, but will not abort the disease. Szadek made use of the following formulas:  $\mathcal{R}$ . Hydrarg. salicylici, 1.0; extr. et pulv. glycyrrhizæ, q. s.; ut ft. pil. No. 60. Sig: From 3 to 6 pills a day soon after meals.  $\mathcal{R}$ . Hydrarg. salicylici, 0.2; mucilag. gummi arabici, 0.3; aquæ destil, 60. M.

This is for deep injections, preferably into the buttocks. Before injecting, the chosen spot is to be washed with bichloride solution. The injections are to be repeated every second or third day.  $\mathcal{R}$ . Hydrarg. salicylici, 0.10; aquæ destil, 250; natr. bicarb. 1.0 to 1.3. M.

This is for urethral injections in gonorrhœa, to be used, in recent cases, four to five times a day.—*Ibid*.

#### The Earliest Symptoms of Hereditary Syphilis.

BASED upon the statistics of the Moscow Foundling Hospital, Miller has made a study of hereditary syphilis, and now (*Jahrbch. der Kinderheil*) gives us the deductions from his observations. Among 1,000 cases of congenital syphilis the various symptoms were met with in the following proportions: Papules of the skin or mucous membranes, 74 per cent.; rhagades of the lips and anus, 70 per cent.; rhinitis, 58 per cent.; ulcers of the hard palate, 52 per cent.; macules 45 per cent.; chronic lymphadenitis, 29 per cent.; ulcers of the tongue, 27 per cent.; pemphigus, 25 per cent.; onychia and paronychia, 23 per cent.; excoriations, 20 per cent.; laryngitis, 17 per cent.; pseudoparalysis of the extremities, 7 per cent.; ulcers of

the skin, 4 per cent.; gingivitis ulcerosa, 4 per cent. Most of the children were extraordinarily thin and atrophic. The umbilical stump, instead of falling off, as in healthy children, on the fourth or fifth day, does not fall till the second or third week, and inflammation of the navel is proportionally more common. The disease makes its appearance in the first month in 64 per cent. of the cases, and in the second month in 22 per cent.; most often in the third week, then in the second and fourth week. The earliest symptoms of hereditary syphilis are rhinitis and pemphigus.—*Ibid*.

#### The Limitation of the Contagiousness of Syphilis.

DR. BANGS is convinced by the analysis of cases reported by M. Fournier: First, of the non-contagiousness of syphilitic sequellæ and so-called lesions of the tertiary stage. Second, that the limit of the contagious stage of syphilis may be put within five years.

Hutchinson does not think any case of actual contagion can be proven after two years.

Dr. Otis thinks the period of contagiousness might be placed at three years; and that the virus in the blood does not remain potent for contagion after the primary and secondary lesions.—*Cincinnati Lancet-Clinic*.

#### Causes of Malignancy in Syphilis.

M. FOURNIER gives six causes for malignancy in syphilis:

1. Age. 2. Scrofulo-tuberculosis. 3. Alcoholism. 4. Malaria. 5. Hereditary predisposition. 6. Insufficiency of treatment.

Syphilis is especially grave at the two extremities of life. Acquired beyond fifty the prognosis is very grave, and beyond sixty the disease is characterized by tending to phagedæna, profuse and

general symptoms, early appearances of gummata and cerebral symptoms; and lastly to a marked reaction upon the general health, prostration, cachexia, and loss of general strength and appetite. In the scrofulous, syphilis is very apt to take on the suppurative and rupial forms. It is among them precocious gummata and massive adenopathies are seen. Alcoholism acts in predisposing to grave and precocious forms of syphilides, constant eruptions, cachexia, and cerebral syphilis.

Poverty is one of the causes of malignant syphilis, and it is among the poor that the worst forms of syphilis are the most common.

Nervous overwork is one factor of gravity for syphilis in directing its localization upon the brain and cord.

Fournier says that nineteen out of twenty cases of severe tertiary syphilis is the direct result of insufficient treatment, or no treatment at all.—*Boston Medical and Surgical Journal*.

#### **The Paquelin Cautery in Acute Epididymitis and Treatment of Chancroid.**

DR. GEORGE E. BREWER (*Jour. Cutan. and Gen. Urin. Dis.*):—The use of the actual cautery in acute epididymitis was first suggested by Dr. W. S. Halsted. His method consists in lightly touching the surface of the skin overlying the effected organ with a white-hot cautery point. The operation requires only a few seconds, and if skillfully performed is but moderately painful. A dressing of iodoform ointment is then applied and the patient instructed to wear a suspensory bandage. Instant relief from pain almost invariably follows the application of this treatment, and the patient, as a rule, is able to be up and walk in comparative comfort.

I have treated forty-six cases by this method, and in only two instances have

the patients been obliged to remain in bed after the first application, and in one of these the real cause of the enforced rest was a co-existing cystitis.

It may be added in this connection that marked relief from pain in gonorrheal rheumatism may also be effected by a similar use of the cautery and iodoform ointment, and this combined with absolute rest has in my experience proved the most satisfactory method of managing this obstinate class of cases.

Another method of applying strong counter-irritations in acute epididymitis is by means of a sixty-grain solution of nitrate of silver applied to the surface of the scrotum. I have employed this in thirteen cases, often with marked success. It however, has the disadvantage of frequently causing a slough of the epidermis, leaving often an extensive patch of superficial ulceration.

The most satisfactory treatment for chancroid which I have employed is thorough cauterization with pure nitric acid and the subsequent application of salicylic acid powder—the object being, first to convert the infected ulcer into a healthy one, and then to prevent reinfection of the wound. While this method succeeds admirably among the better class of patients, it often fails completely in hospital practice from a failure to carry out the after treatment. I have frequently seen reinfection take place in ulcers that have been perfectly healthy for several days, by simple contact with clothing upon which the dried secretions from the original sore had been allowed to remain.

A method, which in my hands has proved valuable in this class of cases, but which, as will be seen, is applicable only to chancroids occurring behind the corona glandis, is the following:

The organ is cleansed with a strong solution of bichloride—all ulcerated



points thoroughly destroyed with nitric acid. Salicylic acid powder is then heaped upon the wound and covered by a strip of thin rubber protective which completely encircles the penis. This should be snugly applied and held in place by a few layers of absorbent gauze and a small bandage. The heat and moisture of the body soon cause the thin rubber tissue to adhere closely to the skin, completely sealing the wound; its elasticity, also, allows of considerable change in the size of the penis without disturbance. This dressing should be left in place for from three to six days, and completely protects against reinfection. If properly applied the resulting ulcer is always healthy and closes rapidly. I have applied this method in ten cases with most satisfactory results, in several of which very extensive ulceration was present.

#### Spinal Manifestations of Gonorrhea.

IN a communication in the *Revue de Médecine*, Drs. H. G. HAYEM and E. PARMENTIER say that, as the idea of infection is to-day intimately connected with the word gonorrhea, one is led to charge to the account of this general infection certain complications which appear in the course of gonorrhœal urethritis. Among these, certain nervous disorders of spinal origin have attracted the attention of a small number of observers such as Stanley, Gull, Everard Horne, Tixier, Peter and Ricord; but they have not up to the present time received a very satisfactory interpretation, and have been confused, at least in part, with some of the manifestations of sciatica. Hayem and Parmentier take up the question again. Relying on previous observations and upon some of their own, they show that, in some cases of gonorrhea, spinal phenomena are met with, such as

girdle pain, lightning pains in the lower limbs, double sciatica, hyperæsthesia, exaggeration of the patellar reflex, epileptoid trembling, impairment of mobility and atrophy of the muscles of the legs and thighs. True paraplegias have been noted. These phenomena appear usually during articular and synovial complications, accompanying them through the periods of recrudescence and decline, so that the notion of simple coincidence is excluded, and present, likewise, a period of appearance variable in accordance with the onset of the gonorrhea. These spinal complications may be grouped in three categories: disturbances of sensibility, disturbances of sensibility and of mobility together, and disturbances apart from mobility, paraplegia in different degrees. They affect, moreover, exclusively the lower limbs, and appear especially in the form of a congestion of the cord, of a meningo-myelitis involving more or less the posterior or postero-lateral portion of the cord. One must, however, take into account the inflammatory irritation which may affect the nerve-roots crossing the spinal membranes, and, perhaps, as Velpeau has noted, of the compression or direct irritation of these roots in the course of vertebral arthritis.

To sum up, among the spinal complications whose cause has been hitherto undetermined, there are some which proceed directly from gonorrhea. Hereafter, spinal complications should be included among the exceptional localizations of the gonorrhœal infection.—*Gaz. Hebdom.—Med. and Sur. Reporter.*

#### DISEASES OF THE SKIN.

##### The Treatment of Acne.

FOURNIER (*Gazette des Hôpitaux*) recommends for the treatment of acne the

use of ignipuncture by means of a fine malleable platinum rod, heated in the alcoholic flame, and introduced perpendicularly into the diseased follicle. Some ten glands are treated at a sitting, the part is then dressed with cold water, and afterward with mercurial plaster. He regards this procedure as being safe, and by far the surest mode of treatment. Together with the use of ignipuncture, the habits of life are to be regulated, and sulphur mineral waters drank.

**The Poisonous Action of Petroleum upon the Organism in General and upon the Skin.**

LEWIN (*Virchow's Archiv.*) has made a study of this subject. The latter part alone interests us at present. Many observers have reported various skin lesions resulting from the use of petroleum in the treatment of the itch—such as wheals, small ulcers upon erysipelatous bases, and an eruption of acuminate vessels upon a red base. Lewin has invaded this country and observed the effects of petroleum upon the operatives in Pennsylvania. He found that the heavy oil was very different in its effects from the light oil. The workers upon the oil pumps are effected with an eruption of hazel-nut sized, transparent, white boils. These affect both young and old, and last in some cases a year or more, in others but a few weeks. The common form of eruption is an outbreak of equal sized pimples and boils, which do not itch, and are located upon the arms and hands. In some laborers the disease relapses frequently. Some escape the disease entirely. Frequent washings of the skin with soap seemed to lessen the tendency to the production of these boils. Sometimes nearly the whole of the skin is affected. Those laborers who are not in constant contact with the raw product escaped the eruption.

In the refining works, those who handled the light oil and the kerosene were not affected, while those who handled the heavy products left after refining were so, especially when they neglected frequent washing of their hands and face. Some skins become accustomed to the irritation in a few weeks or months and react no more, while some skins never become habituated. The disease produced is essentially an acne; red, hard papules with a central black point upon an indurated reddened base. Furuncles also were scattered about. Some papules were surmounted by a vesicle; if located about a hair follicle, the hair was frequently wanting, and a gaping opening was left. These were seen most frequently on the arms and legs. This disturbance was caused by the irritation of the follicles of the skin by the petroleum.

**Comedones in Children.**

T. COLCOTT FOX (*Lancet*) has seen over forty cases of comedones in children. Unlike what obtains in adults, these comedones usually occur in well defined groups or aggregations, all the follicles of a certain part being plugged up. Their most common location is close to the hair along the forehead over the centre of the eyebrows. They may extend clear across the forehead and down each side onto the cheeks in front of the ear. They may also affect the hairy scalp over its anterior one-third or quarter, or upon the occiput, or behind the ears. Inflammation now and again occurs, and acne-like lesions may appear which usually are slight in extent and merely secondary to the comedones. They seem to be slightly contagious, as they occur more frequently in some parts of London than in other parts, and it is not uncommon to see several members of the same family affected at the same time. In twenty-five out of

thirty-six cases the disease appeared between the fifth and ninth year, in sixteen cases between the fifth and seventh year. The youngest patient was one year and ten months old. It is rather more frequent in males than in females. The spring-time, especially March, is the most common time of their appearing, and in winter they tend to disappear. They often come and go in a surprisingly rapid and unaccountable manner. They are not associated with any one condition of health, though it is worthy of note that they occurred with four different cases of alopecia areata. The plugs consist of epithelial matter, and not of imperfectly formed sebum.

#### Onycho-Atrophia.

THIS is the name given to a condition, observed by Dr. SHERWELL, in a patient whom he presented not long since before the New York Dermatological Society. The patient was a woman of 55, a widow and a native of Ireland. About two years previously she had an eruption, apparently erythematous in nature, which appeared on both legs below the knees. At the same time the nails on both feet began to thicken at the base, and finally their complete loss occurred. During the past two or three years the patient has complained of general lassitude and aversion to exertion. Obscure neuralgic symptoms have always been complained of; but there is no evidence of any diathesis. The urine, upon examination, proved to be normal. The conclusion of Dr. Sherwell was that it was an atrophy of the nails due, most probably, to some obscure nervous trouble.—*St. Louis Med. & Surg. Jour.*

#### Eccentric Pustular Dermatitis.

A NEW form of skin disease has recently been presented by M. Hallopeau

(*Journal de Médecine et de Chirurgie Pratiques*) for which he proposes the rather lengthy name of pustular dermatitis in disseminated foci, with eccentric progression (*dermatite pustuleuse en foyers disséminés, à progression excentrique*). The disease shows itself in small disseminated groups of pustules, at first small, with an erythematous base, and in whose vicinity others form so as to produce patches of some extent. All parts of the body may be successively attacked. In the case presented the mouth was first attacked, then the lips, the hands, the buttocks, the vulva, this process having occupied two years. The best results have been those obtained from the local use of iodoform.—*Ibid.*

#### DISEASES OF THE EYE AND EAR.

##### Influence of Sensual Excitations on other Sensations.

DR. URBANTSCHITSCH has instituted investigations on the physiological interaction between the different sensations, and he has tried to explain the phenomenon of subjective color sensations in excitations of the auditory, gustatory and olfactory organs. These so-called duplex sensations have been observed and described by Nussbaumer and later by Bleuler and Lehmann. In the first place, Urbantschitsch has investigated the correlation between sensations of audition and vision, and has reached the conclusion that auditory excitations generally intensify, seldom attenuate, the sensation of color, as well as the acuteness of vision. To a similar result led an investigation of the interactions between auditory and gustatory sensations, and between auditory and olfactory sensations. Tactile sensations showed a different behavior, inasmuch

as, under the effect of high and deep sounds they generally appear attenuated, while the sensory nerves were subject to excitation by acoustic effect (toothache in consequence of auditory irritation).

With regard to the action, exercised by optic sensations on the sense of audition, it was established that the different colors have a different influence on the latter. Green and red often intensify the sensation of audition, blue and yellow attenuate it; in many cases all colors may act in a uniform way. Musical sounds may, according to the action of colors, acquire a higher pitch, and at other times, a lower one; the place where the sound is supposed by the ear to originate, is removed backwards ("displacement of subjective field of audition"). The subjective sensations of audition are equally liable either to be produced by light and color sensations (by red, green and light) or to be diminished (by blue, yellow and dark).

The investigation of interaction between visual and gustatory sensations showed in many cases excitation (increase) of the gustatory sensation by light, red and green, diminution by dark, blue and yellow. Olfactory, tactile and temperate sensations behaved in a similar way.

Urbantschitsch has examined all other sensations with regard to their mutual influence, and has reached the conclusion that there is a physiological correlation between all sensations, meaning that each sensory excitation at the same time calls forth a certain excitation of the other sensations.

With regard to "deeper sensations" (the appearance of subjective color sensations in auditory, olfactory and gustatory sensations) Urbantschitsch, on the ground of the above mentioned results of his investigations, favors the opinion that they are, in the same way, reducible

to physiological duplex sensations, caused by auditory, gustatory, etc., sensations, the subjective color sensations refer to all the spectral colors, in the duplex sensations, described by the other authors, there is one color which is more prominent than the others. Altogether, the fact of subjective color sensations appearing in auditory, gustatory, olfactory or tactile sensations may be, as the author explains, easily demonstrated as a simple physiological phenomenon. In looking at a white surface, most people, when under the effect of auditory, gustatory, etc., sensations, will at the same time experience subjective color sensations (colored streaks or spots).—*Deutsche Medizinische Zeitung*.—*Pacific Record*.

#### Medication of the Drum Cavity.

YEARS ago, following the recommendations of some of the German writers, I injected all kinds of solutions through the catheter into the drums. I soon gave up the practice, for the reason that I saw no good effects from the various medicines, while in a few cases I excited acute inflammation and quite severe suffering. This caused me to discontinue the injections. Some years since, I treated a man who had most distressing noises in one ear, which I was unable to modify or relieve in any way. So I concluded I would excite suppuration in the drum and, if possible, an abscess, in the hope that free suppuration would relieve the terrible noises. So I injected a solution of jequirity into the drum. This excited acute inflammation and was quite painful for a while, but no suppuration took place. I was disappointed in getting any good effects on the noises.

This summer I treated a young man, whose drums were full of a tough muco-



purulent secretion. I could free them by catheterization, but the secretion would promptly reform. Finally, I injected into the ear several times, a saturated solution of boracic acid in warm water. This soon dried up the secretions. Mild antiseptic solutions can be safely injected into the drums, but astringent solutions, as I think, do no good and may do harm, and I have therefore abandoned them.—*St. Louis Medical and Surgical Journal.*

#### **Freaks of Atropine from its Local Use.**

SOME years since, I had occasion to use a solution of atropine in an old lady's painful ear. After a few applications, the whole auricle and that side of the face suddenly swelled, the skin of the auricle, particularly, becoming intensely red, as in acute erysipelas. At the time, I thought the inflammation of the skin was the result of some peculiar action of the atropine, but her family physician thought it was genuine erysipelas, which she had had before. The trouble, however, passed off promptly on discontinuing the atropine. Early this summer the same old lady had an ulcer on one cornea, for which I prescribed atropine solution. After a few applications to the eye, the same erysipelatos inflammation of the lids and the side of the face suddenly developed. There was dropsical effusion under the skin, giving it a sacculated appearance. Again I attributed the inflammation to a peculiar action of the atropine, but her physician again thought it was genuine erysipelas. Again the trouble promptly passed off on stopping the medicine.

Some weeks later, a fresh ulcer developed in the same eye. I again prescribed atropine solution, and warned the patient and her friends that they might expect a return of the "ery-

sipelas" after a few applications, and if such were the case, to stop the remedy at once. Sure enough, after three or four applications, the same inflammation of the skin set in, more violently than on any previous occasion, nor did it cease until it involved the cutaneous surface of the whole body. It was accompanied by a general subcutaneous effusion, extending from scalp to the soles of the feet. The old lady is, normally, "nothing but skin and bones," but the effusion gave her the appearance of immense fatness. Her head swelled, the auricles became enormously enlarged, the eyes closed partly; in short, all the depressions of the body were "leveled up." The skin was intensely red and the misery of the situation was intensified by an intolerable itching which she aggravated by scratching until exhaustion put an end to her power to scratch. On discontinuing the atropine, the entire train of phenomena rapidly subsided and disappeared.

These exceptional effects of the local application of atropine certainly deserve the appellation of "freaks" with which I have here designated them. Atropinism—inflammation of the lids, is frequently observed as a result of the application of the medicament to the eyes; but this case of diffused atropinism accompanied by general anasarca is the first that I have ever seen or even heard of.

It will be remembered that I have, in these pages, repeatedly recorded exceptional phenomena (suppression of urine, serious mental disturbances, somnambulism, etc.), referable to the local use of atropine after cataract and strabismus operations. Such manifestations are evidently due to idiosyncrasies of the individual patients, and of course cannot be foreseen or guarded against.—*Ibid.*

## FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.

### Krohne's Modification or Thomas' Double Hip Splint for the Treatment of Diseases and Injuries of the Spine.

THE well known Thomas double splint for disease of one or both hip joints (Fig. 1) is rendering great service in the treatment of that affection. Mr. KROHNE has added to this splint a pelvic band, a support for the shoulders, neck and head, and two sliding foot pieces, as shown in Fig. 2. The two upright bars are made after the shape of a healthy, normally formed child when in the recumbent position.

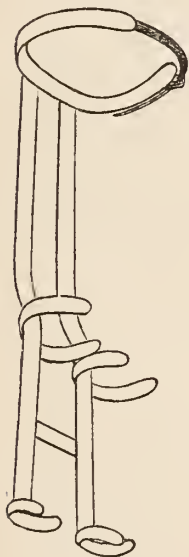


FIG. 1.



FIG. 2.



FIG. 3.

head and both feet, so that the entire body is supported, as shown in Fig. 3.

The first object in the treatment of spinal caries, weak or injured spine, is to devise means whereby the weight of the head and upper extremities is taken off the spine. This is obtained by placing the child and retaining it during the whole time of treatment in the uninterrupted recumbent position. By the aid of this splint the surgeon is enabled to carry out this treatment, and the splint being applied next to the skin, the child can perform its natural functions without the removal of the apparatus.

The second object is to fix the spine, which is effectually done by placing a wide bandage around the body and the splint; further, to prevent the child from raising its knees and using the legs as levers, and thus jerking the spine, both legs are bandaged to the splint. Both feet and ankles are also supported by a bandage, to protect the feet from the pressure of the bedclothes, and to prevent them from dropping forward or to either side. The bandages are not shown in the engraving. With slight modifications, the splint can be adapted to cases of disease or injury of the lumbar, dorsal, or cervical part of the spine.

Most cases of advanced spinal disease are accompanied with contraction of one or both hip joints.

They give posterior support to both sides of the spine. The two cross-bars, the pelvic band, and the band reaching to below the axillæ, support the pelvis and body laterally. The lower extremities are kept in position by cross-bars supporting the thigh and lower third of leg. The rest of the splint consists of the support for the shoulders, neck,

No special notice need be taken of such contractions. The child is placed with its back on the splint, care being taken that the fold of the buttock corresponds with the angle of the splint, and the bandage is then applied. The child is next made to straighten its legs as much as possible. Any existing angle under the knee is filled up with soft padding,

and the legs are thus bandaged to the apparatus. The contractions will be gradually corrected by the limb dropping, by its own weight and without pain, to the straight line of the splint, which will be noticed by the bandage getting loose. Some of the padding must then be removed and the leg re-bandaged. This has to be repeated until the limb has dropped to the straight line of the splint. The same straightening process goes on simultaneously in the spine, correcting lordosis or any other abnormal curvature. The pelvis forms the fulcrum, and the body above and the limbs below it are the levers, dropping by their own weight to the line of the splint without the slightest pressure being required.

Throughout the whole time of treatment care must be taken not to cause pressure on any part. It is, therefore, absolutely necessary that the child be placed, after the adjustment of the splint, on a soft and loosely stuffed feather bed, when the bars of the splint sink into the bed, and the feathers rise and support the whole body. Some absorbent cotton wool should also be placed on and above the heel. When supporting it by a bandage to the sliding foot pieces, fresh cotton wool should be employed, whenever the bandage is replaced. Attention must also be given to all the crossbars, which must be bent away from the body if they cause undue pressure.—*Lancet*.

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**On a Case of Loose Body Removed from the Elbow Joint, Presumably Due to Fracture of the Head of the Radius.**

DR. G. A. SYME, in an article published in the *Australian Medical Journal*, gives the following history :

A male of 22 stated that about five years ago, after a light wrench, his right elbow became very painful and swollen,

so that for rather more than a week he was unable to use it. Prior to this he had never had any trouble with the joint whatever. He was attended by a medical man, who said the joint was inflamed. He soon recovered complete use of the arm, and felt no further inconvenience until Christmas, 1886, when he injured the same arm in the following manner: While holding up the shafts of a heavy dray, it overbalanced, and he was thrown violently to the ground on his back. He retained his hold of the shaft in his right hand, keeping it supported off the ground, and felt a strong "jar" in the right elbow, which rested on the ground. The joint became very painful, and he found he could neither straighten nor fully bend the arm, and when he did attempt to straighten the arm, a "lump" appeared on the outer side of the joint, but disappeared on his touching it. The medical man who attended him, strapped the joint, and said he had a loose cartilage. The lump reappeared as soon as he began to try to use his arm, and caused him great pain.

An appliance to keep the "lump" in place gave no relief, and now he can hardly use the arm at all.

On examination the right arm was found much wasted, especially the upper arm. Flexion and extension were limited, especially extension, also rotation of the radius; while the head of the radius did not move in the usual manner, but gave the impression of being displaced, although I was unable to make out the form of the displacement. By a peculiar sudden movement of extension at the same time that the supinator longus muscle was strongly contracted, the patient voluntarily caused a movable body to protrude on the outer side of the joint, below and very slightly in front of the external con-

dyle. The slightest manipulation of this made it disappear. It was obviously a loose body, and I advised its removal, though not very sanguine of effecting very much improvement in the motion of the joint.

From the history he gave of previous inflammation in the joint, and the nature of the accident, I thought that the body was probably an hypertrophied fringe of synovial membrane that had become pendulous, and then been detached by the injury.

Having rendered the limb bloodless, I injected cocaine subcutaneously over the site of the body, and this being protruded by the patient (who was not anæsthetized, in order that he might assist in protruding the body), I endeavored to transfix it with a strong hare-lip pin. Unfortunately, as soon as it entered the body, the pin broke off short. I then cut straight down, but the moment the knife reached it, the body slipped away. The patient again protruded it, and I enlarged the incision, at the bottom of which appeared the apparently normal head of the radius, but no loose body, although the patient insisted that it was protruded. I examined with my finger, and to my surprise the head of the radius disappeared. I dissected a little further, and told the patient to again protrude the body. He did so, and out it shot. Cursorily examining it to see that all the rest of the hare-lip pin was fixed in it, I, satisfied on this point, immediately began to close the wound, as the effects of the cocaine were passing off, and unfortunately omitted to examine the condition of the head of the radius, an omission for which I now blame myself severely. A deep catgut suture was passed through the incision in the synovial membrane, the wound closed and dressed with perchloride of mercury

gauze and salicylic wool, and the arm placed on a splint. With the exception of a small superficial abscess round one suture, there was no disturbance, and the wound healed by first intention. Passive motion, massage, and faradism were commenced in about ten days, and the patient returned to his home at St. Arnaud in about three weeks, with improved though impaired motion, but free from all pain, and able to use the limb. He was treated as an out-patient during the whole period.

On carefully examining the specimen, the conclusion was forced on me that it was a portion of the head of the radius, separated from the rest of the bone by an oblique fracture running downwards, and slightly outwards, the section revealing that it consists of true bone covered on its (presumably) upper and outer surfaces by articular cartilage, and on the other surface (presumably the line of fracture) by fibrous tissue.

#### **Treatment of Wounds by Continued Irrigation.**

IN the London Hospital a permanent apparatus has been put up in one of the accident wards, which is practically self-working. A large tank fixed in the wall is supplied with hot and cold water by pipes; a window in its side shows the level of the water and exposes a thermometer by which the temperature of the water is adjusted; from the tank irrigating tubes pass to various beds, and after being used for irrigation in the manner described by Mr. Treves, the water is drained off by a pipe which passes into the basement. Two patients are at present under treatment by this method; in one case a stream of water has been running over a severe wound of the elbow produced by a crush, day and night without intermission for nearly three months, and the large wound is



nearly healed. In the other case the wound, a severe crush of the hand with loss of much skin, compound fracture of several bones, and exposure of some carpal joints, is also doing well.—*British Medical Journal*.

#### Antiseptic Treatment of Wounds of the Hand.

DR. OLMSTED (*Canadian Practitioner*):

The following is the outline of the method used in my cases.

1. The hand and forearm of patient are thoroughly washed with (a) soap and water and brush; (b) alcohol; (c) bichloride solution, 1-1000.
2. Towels wet with 1-2000 bichloride solution, and placed under hand and around forearm.
3. Instruments are soaked for fifteen minutes previous to use in a 5 per cent. solution carbolic acid.
4. Ligatures and sutures are fine, Nos. 0 and 1, and soaked in 1-2000 bichloride solution containing 25 per cent. of alcohol.
5. If a finger is to be amputated, cocaine (3 ss. of 4 per cent. solution) is injected, and circulation arrested by a rubber band which has previously been sterilized.

If the wound is a clean incised one it is cleansed, sutured, and sealed with a solution of iodoform in collodion (3 i iodoform to  $\frac{3}{4}$  i collodion). The dressings consist of protective, iodoform, moist bichloride gauze, bichloride cotton, splint and bandage.

#### A New Method of Extension in Hip-Joint Disease.

It is now generally agreed that to apply weight extension to the limb, regardless of its position, is not only useless, but often mischievous. The reason is not far to seek. If, in the stage of abduction and flexion, a weight be simply applied to the leg by means of a

stirrup, a part of the force acts along the line of the tibia, and not that of the femur, and so is of little practical value, while the remainder, which is in the direction of the upper part of the limb, tends to produce negative rather than positive results. We have to deal with an apparently extended thigh, but in reality there is flexion compensated by lordosis of the lumbar spine. Any force, then, which tends to bring the thigh in contact with the bed, without diminishing the lordosis, increases the tension of the anterior muscles of the thigh, and of the inflamed anterior ligaments of the capsule of the joint, upon which, as a fulcrum (to quote Mr. Barker's words), the leverage of the femur will still further force the head into the acetabulum, and bring the diseased surfaces in closer contact.

Mr. Howard Marsh's plan in the stage of rigidity and pain is to raise the limb until all lordosis has disappeared, and thus, having ascertained its true position, to place it on an inclined plane, the angle of which corresponds with that of the thigh, and then to apply weight extension. By using a sufficiently broad surface the limb can be accommodated in almost any degree of abduction or adduction. When all the muscular spasm has subsided, the limb is placed horizontally on the bed, and extension still maintained. But this method takes no cognizance of the accompanying lateral curvature of the spine, nor does it secure as much separation of the joint surfaces as possible. We know that in abduction the affected side of the pelvis is tilted downwards, and there is a lateral curvature of the lumbar spine with the concavity looking towards the sound side. By the application of one weight only the pelvis is still further tilted and the curvature increased.

In the *Lancet* for August 18, 1888, Mr. A. H. Tubby recommends a method employed by Professor von Volkmann, which seems to fulfill all the requirements of early treatment, and is very similar in its application. The method is the following:

In abduction a weight is applied to each leg, but the heavier weight is on the sound side. What is the result of this? There is still extension on the diseased side as before, but there is another force acting on the pelvis from the sound side. This latter force, in the first place, tends to render the pelvis horizontal, and, acting lever-like with the lumbo-sacral articulation as a fulcrum, not only corrects the tilting, but also separates more thoroughly the diseased surfaces, and still further insures a normal spinal curve when cure takes place. This happens more frequently without operation than we are led to suppose in general hospitals, and this statement is verified by the statistics of Mr. Howard Marsh. But Professor von Volkmann's plan is not applicable if flexion and abduction be present, but only when the former has disappeared.

Mr. Tubby suggests, then, that if we have to deal with a diseased hip, with much muscular spasm and excessive pain, a combination of the two methods should be employed—viz., to place the affected part on an inclined plane of such an angle that the lumbar spine is in complete contact with the bed, and then to apply a weight to each limb, but that on the sound side should be three or four pounds heavier than that on the diseased side. In the condition of abduction only, Professor von Volkmann's plan fulfils all requirements; and in adduction, with the pelvis tilted upwards on that side, one weight only is needed to compensate the deformity.

Weights can be readily extemporized from calico bags filled with shot.—*Therapeutical Gazette.*

#### The Treatment of Carbuncles and Boils.

ACCORDING to Eade (*Lancet*), carbuncles can be cut short at almost any stage of their course. When they begin as pimples, continuous soaking with a solution of a mild antiseptic, such as boric acid, or salicylic acid, will almost certainly destroy them. At a little later period they may be aborted by thrusting freely into their central or cribriform openings a strong solution of carbolic acid in water or glycerin. When they become large and solid they must be partially or entirely excised or else incised and the boggy material scraped away. If surgical proceedings are refused, the continuous application of carbolic solutions in oil or glycerin, with or without poulticing, will do much to improve their condition. Boils may be treated on the same principle, but the heroic surgical procedure is not necessary.

#### To Restore the Polish of Instruments.

DR. FRANK L. JAMES, editor of the *St. Louis Medical and Surgical Journal*, gives in the August number the following useful information regarding the restoration of polish to surgical instruments:

Some weeks ago the stopper of a bottle of corrosive sublimate, which was carried in a satchel along with a lot of loose instruments, came out and the chemical was emptied into the bag. The fact was not noticed at the time, and the next day the instruments were found covered with rust and in some instances quite badly eroded. How to get the instruments clean without sending them to an instrument maker was a question which I determined to settle

by experiment. The instruments consisted of dressing forceps, scissors, needle holder, needles, several bistouries, scalpels, etc., the knives all having tortoise shell or ivory handles. Without going into the details of the experiments, I will give you the method of procedure which yielded perfectly satisfactory results. A saturated solution of chloride of tin in distilled water was made, and with this a large number of test tubes were filled to a height sufficient to admit of the immersion of the blades of the knives, the forceps, etc. The instruments were inserted and left over night. The next morning they were found quite clean and of a mat-silver whiteness. Rinsing in running water, wiping and rubbing with a cham-bris completed the operation. Chloride of zinc solution gave pretty good, but not nearly so satisfactory results.

#### The Practice of Disinfection.

THE following directions for disinfection are contained in the official *Formulaire Pharmaceutique* of the Paris hospitals and quoted in the *American Druggist* :

1. Before employing any disinfectant, search for the cause of infection, with a view to suppress it. Particularly look to the tightness of sewers, construction of closets, etc.

2. *Personal Disinfection*.—Surgeons and their assistants should wash their hands first with soap and water, and afterward with either one of the following solutions: *a.* Carbolic acid, 50 parts; glycerine, 75 parts; water, 1000 parts. *b.* Corrosive sublimate, 2 parts; chloride of sodium, 2 parts; water, 1000 parts.

3. *Disinfection of Bedding, Clothing, Curtains, Carpets, etc.*—Expose the objects, during twenty minutes, to steam under pressure, in a suitable apparatus,

such as that of Géneste and Herscher, at a temperature of at least  $105^{\circ}$  C. ( $212^{\circ}$  F.) Dry air, even at  $120^{\circ}$  C. ( $248^{\circ}$  F.), does not disinfect bulky articles, even after several hours; and woollen goods are rendered reddish-brown by it.

Blood, fecal matters, and colored albuminous dejections leave indelible stains upon fabrics, if these are heated to about  $100^{\circ}$  C. ( $212^{\circ}$  F.) The stains found on coverlets, mattress covers, etc., are first washed with a dilute solution of hypochlorite of sodium (about 1 volume of Labarraque's solution in 300–400 volumes of water). [This will be found too dilute. The strength to be used will depend upon the intensity of the stain and the nature of the fabric.]

Shoes should be washed with the following solution:—Corrosive sublimate, 2 parts; chloride of sodium 2 parts; water, 1000 parts.

4. *Disinfection of Linen, etc.*—Bed-clothing, linen, etc., which is soiled by dejections or blood, should first be soaked or rinsed in the above-mentioned dilute solution of hypochlorite of sodium (called chlorozone in the original), then wrung out, and afterward put in the steam heating apparatus. Or the articles may be boiled in the liquid just mentioned. Or they may be kept from six to twelve hours in a weak solution of chloride of lime, obtained by enclosing chloride of lime in a sack of stout material and hanging it into the water. About one pound of chloride of lime is required for every 24 gallons of water. In order to avoid the scattering of germs, the fabrics should be immersed in the liquid before sorting and counting.

Leather is disinfected by applying to it, with a brush, a solution of corrosive sublimate, 16 grains; chloride of sodium, 16 grains; water, 1 quart.

5. *Infectious Fecal Discharges*.—Place into the porcelain vessel (intended to

receive them) beforehand some 4 or 8 ounces of a 5 per cent. solution of hydrochloric acid or chloride of lime, or the following:—Sulphate of copper;  $1\frac{3}{4}$  oz; sulphuric acid,  $1\frac{3}{4}$  oz; water 1 quart.

6. *Sick Rooms Unoccupied*.—These are treated either by sulphur or nitrous fumigations.

a. Sulphur fumigations. Close up all exits and fissures (except one or more, to be closed after the disinfecting process has been started). Boil some water in the room for at least one hour in a vessel placed on a suitable heating apparatus. Place pieces of sulphur into sheet-iron pans having low sides (about 12 inches in diameter, and 2 inches high), standing upon beds of sand. Add a little alcohol to each, and then ignite them. For every 35 cubic feet, 300 grains of sulphur should be used. Close the last exits. After twenty-four hours open the room and ventilate thoroughly.

b. Nitrous fumigations. Into a cup, placed inside of a stoneware jar, put crystals of nitrosyl-sulphate (sulpho-nitrous acid; the lead-chamber crystals of sulphuric-acid works), of which about 16 grains will be required for every 35 cubic feet. Then place the vessel under a faucet, and adjust the latter so that water will fall upon the crystals drop by drop, which will cause the immediate disengagement of reddish fumes. Close the room until the following day. Be particularly careful not to inhale the escaping vapor of the gas, or the air of the room, charged with the vapors on opening it. It is best to have two vessels containing the disinfectant, one at each end of the room.

After either one of the above fumigations are completed, wash the walls and floor of the room, by means of a painter's brush, with a 2 per cent. solution of carbolic acid.

7. *Disinfection of Wagons (Ambulances, etc.)*.—Sick-wagons should be disinfected in the following manner:—

Wagons which can be closed are disinfected like sick-rooms, by means of the before mentioned nitrous fumigations. Wagons lined with cloth may be likewise disinfected in this manner; but open wagons must be disinfected in a special shed which can be closed.

Wagons lined with moleskin or plush are disinfected like shoes, viz., by washing them with a solution containing 2 parts, each, of corrosive sublimate and of chloride of sodium in 1000 parts of water.—*Coll. and Clin. Record*.

#### The Elements of Success in the Operation for Cleft Palate.

THE operation should not be done too early in life. Even in the milder cases, when the cleft is limited to the soft palate, success is more certain if the child is at least two or three years old. In the average run of cases it is better not to operate until the patient is between four and five. In very young children, too, there is more danger to life.

Care must be taken to see that the patient is in good general health before the operation is performed. The temperature should be taken morning and evening for two or three days before it is proposed to operate, and if it is not absolutely normal the operation should be postponed. Care must also be used to ascertain that the child has not been exposed to any of the exanthemata, especially scarlet-fever. Should the patient have a cough, no matter how slight, or diarrhea, the operation ought to be postponed.

After the age and health of the patient come the width and the shape of the fissure and the conformation of the bones at the roof of the mouth.



The mere antero-posterior extent of the cleft is immaterial. It is quite as easy to close a fissure that involves the whole length of the hard palate, as it is to close one of similar width that involves only the posterior part. Indeed, it is sometimes easier, because the closure of the anterior part removes tension from the sutures posteriorly, where union is most likely to fail. The really important points are the width of the fissure, the shape of its anterior end, and the height or pitch of the arch of the hard palate. As to the width of the cleft, it is obvious that, other things being equal, the wider the cleft, the more difficult it will be to close it. As to the anterior end of the cleft, when this is pointed like a thin wedge the shape is favorable; but when the anterior end is rounded like the bow of a hairpin, even though the cleft farther back is not very wide, the difficulty of closure will be considerably increased. As to the height of the palate and the shape of the arch, the higher the arch and the more it approaches the perpendicular—the width of the cleft remaining the same,—the easier will the closure be; while the lower the arch the more difficult does closure become.

Tension may be relieved by taking pains to detach the flaps, especially at the junctions of the hard and soft palates, and by making lateral incisions. These incisions should run antero-posteriorly midway between the line of sutures and the alveolar border. Anteriorly they should entirely divide the soft parts, posteriorly they should extend but little if at all beyond the mucous membrane. By following this plan there will be no danger of impairing the vitality of the flaps. As to the sutures, these should be of silver for the hard palate, and of horse-hair, mainly or exclusively, for the soft; and

the first to be passed should be a fairly deep silver suture, obtaining a secure hold, at about the junction of the hard with the soft palate. Then the soft palate should be closed to the tip of the uvula; and, lastly, the hard from behind forwards. If the sutures in the hard palate are producing marked tension, they should be only loosely twisted for the moment, and should be tightened with torsion forceps only after the side cuts have been made.

For four or five days after the operation the child should be fed exclusively upon milk and beef-tea, with a little brandy added to the milk if this seems necessary. From the sixth day to the fourteenth he may have, in addition, fine bread crumbs well softened in gravy; bread sauce, made by scalding finely-grated bread crumbs in milk; potato finely minced in gravy or beef-tea; corn flour, or ground rice, puddings made with milk and eggs, or soft custard pudding. Only when the palate has healed and the sutures have been removed, should solid food be allowed. As harm may be done by asking the child to open his mouth to show how the palate is getting on, it is best to follow the plan of requesting that no one should look at the palate for the first week. Looking can obviously do no good; for even if union is failing to take place nothing can be done. The best chance always is to keep the palate at complete rest. Should the child flag, or look pale, or not take his food, he should, even on the second or third day, if the weather is warm, be sent out for a drive—if this can be done—twice a day; or he should be allowed to be up and walking about, for this will do no harm if he is carefully watched. Several times I have followed this plan with advantage. When children are evidently doing well, they may be kept

in bed, where they are most easily managed, for a week, and then allowed to be up. As a rule, no local applications should be made. The sutures may be removed in ten days or a fortnight.—*London Lancet.*

#### The Pupil as a Guide in the Administration of Chloroform.

THE *Medical Record* has the following:

As a result of experiments upon animals and of observations made upon man, Dr. H. I. NEILSON formulates the following conclusions:

1. The first effect of chloroform narcosis on the pupils consists in a dilatation which varies in intensity and duration in different individuals. As the anesthesia becomes more profound, the pupils then begin to contract, and finally become very small and immovable. If now the chloroform is pushed still further, a sudden dilatation occurs, which is the result of asphyxia, from which the patient seldom recovers.

2. As long as the pupil is observed to dilate in response to sensory stimuli, such as pinching the skin, the anesthesia is not yet sufficient to allow the commencement of the operation.

3. As soon as the pupil becomes strongly contracted and immovable, the administration of the anesthetic must be suspended until a commencing dilatation is observed, and the patient must be held at just this point as long as the operation continues.

4. Vomiting causes a dilatation similar to that occurring as the patient emerges from the narcotic condition, but it is usually more sudden in the former case. In experiments upon dogs it was found that the contraction of the pupils did not begin until the blood pressure was somewhat reduced, and that the dilatation proceeded *pari passu*

with the increase in the blood pressure. The author regards the appearance of the pupil as a very reliable guide for the administration of the chloroform, as by it he is enabled to judge accurately concerning the condition of the patient.—*La Riforma Medica.*

#### The Treatment of Aneurisms by Moore's Method.

THE following are the conclusions of Professor VERNEUIL, presented to the French Academy of Medicine, as to the value of Moore's method in treating aneurisms (*La Tribune Médicale*):

1. The method of Moore, or filipuncture, generally employed in the treatment of aneurisms of the thoracic aorta, consists in the introduction and abandonment of metallic threads in the aneurismal sacs.

2. Physiologically, this method rests on the well known property of the production of coagulation of the blood when in contact with foreign bodies while within the blood vessels.

3. Resting on this fact, it was hoped that the clots and fibrin would be deposited partly on the threads and partly on the walls of the sac, and would so form both to the centre and at the circumference masses, which would gradually increase in size so as to obliterate the cavity of the aneurism—that is to say, would produce a radical cure, or would at least so strengthen the walls of the sac as to diminish the danger of rupture and so lead to a prolongation of life.

4. The tolerance of the organism for foreign bodies was counted on for the permanence of the result and to render the method efficacious and harmless, while at the same time of simple performance.

The above represent the aims of this operation; the following, according to

Verneuil, is what practice has shown to be the result of the operation :

5. Operators are by no means in accord as to the details of the operation. Almost all recommend some modification or even many modifications, so that to-day it is almost impossible to know what is the preferable manner of operating.

6. The operation is by no means as simple as is claimed, since it frequently remains but partially performed, and has produced serious accidents.

7. Foreign bodies introduced into the sac by no means always produce coagulation of the blood and depositions of fibrin, and, further, when they are produced they are by no means permanent, even when assisted by the presence of the threads.

8. These foreign bodies, metallic or otherwise, produce various accidents, by their presence, whether inflammatory or mechanical, primary or secondary, but in all cases of a serious nature.

9. Filipuncture, whether considered as a radical operation or as a palliative operation, and employed in the treatment of profound or superficial aneurisms, has as yet given but lamentable results, and certainly inferior to those already furnished by other surgical or even medical methods.

10. It has never succeeded in the treatment of aneurisms of the aorta, for which it was originally designed, nor for those of the brachio-cephalic trunk, the subclavian or the femero-iliac artery. It has been used somewhat more effectively in cases of aneurism of the abdominal aorta. It can only claim one result in a very simple case of aneurism of the humeral artery.

11. It is no more efficacious as a palliative operation. The amelioration which has been attributed to it is rare, partial, but temporary, and neutralized,

in many cases, by prompt and serious aggravation.

12. It has without doubt relieved many patients, but nothing proves that it has prolonged life in any of them. On the other hand, it has without doubt precipitated the fatal termination in more than one case.

13. Filipuncture has been performed on thirty-four patients, of whom thirty-one died before the expiration of a year, and the majority before the end of the first month. It would, however, be unjust to attribute all these failures to the operation, since many of them are without doubt dependent upon the disorder and state of health, and to lesions pre-existing in organs other than the seat of the aneurismal sac ; but the intrinsic gravity of the method is not only demonstrated by the operative accidents, but by the undeniable aggravation and rapid increase of local and general complications.

14. Practice not having realized the promises of theory, the operation of filipuncture should not be encouraged ; and, in fact, this operation should not be resorted to.—*Therapeutic Gazette.*

#### The Treatment of Pulmonary Abscess.

IN a paper in the *Revue de Médecine*, Drs. SPILLMANN and HAUSHALTER discuss the subject of abscess of the lung following acute pneumonia—a somewhat rare event. They reproduce abstracts of nine recorded cases where pneumotomy was had recourse to, in seven with success. All these cases were operated upon long after the pneumonia had subsided, in two after the lapse of two and five years respectively. Surgical intervention should, in their opinion, not be delayed so long, owing to the risks involved both locally and generally in leaving an abscess in this situation unrelieved. The diag-

nosis is, therefore, all important, and is based upon the supervention of hectic after pneumonic defervescence, of purulent or gangrenous expectoration containing shreds of lung tissue, fatty crystals, etc., and the physical signs of excavation. Recognizing the frequent insufficiency of these latter signs, they urge the use of exploratory puncture, which was adopted in most of the cases referred to. Pleuritic adhesions may have resulted from the previous pneumonia, but in some cases they are lacking, and may have to be artificially produced, either by resection of a rib and suture of the pleural layers, as suggested by Rüneberg, or by exciting pleurisy by means of the cautery, as Cerenville did. Rüneberg, however, does not think the absence of such adhesion contraindicates the operation. The authors record a case of their own where signs of abscess at the right base appeared on the fifteenth day of pneumonia, and where the diagnosis was confirmed by exploration. Glycerin and iodoform were injected into the abscess, but the patient died on the following day from collapse. The paper concludes as follows: 1. Before having recourse to operative intervention, one must be quite certain of the existence and site of the abscess by every method of diagnosis, and especially by exploratory puncture. 2. When an abscess is diagnosed in the course of pneumonia, intervention should, as a rule, not be entertained; but if the pneumonia is cured and the abscess persist, then intervention may bring about rapid recovery, or, at least, prevent serious accidents resulting from the opening of the abscess into neighboring organs or externally. 3. Before opening the abscess, it is useful to provoke pleural adhesions, if these do not exist. 4. To reach the abscess, the

best procedure seems to be resection of rib and piercing the lung by the thermo-cautery. 5. The complete escape of septic fluids must be effected by drainage; antiseptic injections are to be avoided, and dry dressings to be preferred.—*Lancet*.

#### New Preserving Fluid.

At a meeting of the New York Pathological Society, Dr. T. M. PRUDDEN presented the formula for a new preserving fluid, which had been referred to by Dr. Northup: Water, 35 fl. oz.; common salt, 3 oz.; saltpetre, 6½ drams; carbolic acid, 1¼ fl. drams; glycerine, 4 fl. drams; amylic alcohol, 1¾ fl. oz.; or ethylic alcohol, 3½ fl. oz.

Specimens should be first soaked in a strong brine and then placed in a large quantity of this fluid. He believed the mixture would be found to serve a useful purpose in the temporary preservation of gross pathological specimens without changing their color or otherwise altering their general appearance. The mucous membranes were particularly well preserved in the fluid.—*Medical Record*.

#### Insect Bites.

THE following application is said to be effective in insect bites: R. Collodii flexilis, p. 19; acid. salicylic, p. 1. M.—*Coll. and Clin. Record*.

#### VENEREAL DISEASES.

##### Christie on Amputation of Penis under Cocaine.

HAVING a case of epithelioma of the penis in a Tartar patient, and finding that after a few inhalations of chloroform the man was a bad subject for a general anæsthetic, the writer decided to try cocaine. Twenty minims of a 5 per



cent. solution of the hydrochlorate were injected in five minim doses at short intervals round the seat of incision, and a quarter of an hour after the first injection the operation was performed without the patient giving the slightest evidence of pain. Another point of interest is that, except from the larger blood vessels, there was hardly any hemorrhage, doubtless due to the constricting effect of the drug on the capillaries. No bad effect followed. The anæsthesia produced lasted over a day; indeed, the patient made no complaint of pain after the operation. He is stated to have recovered without a bad symptom, and now enjoys excellent health.—*Lancet*.—*Anæsthetic*.

#### A New and Rational Treatment for Gonorrhea.

UNDER this attractive title, Mr. CHARLES J. SMITH, formerly Surgeon to the Farrington Dispensary, states in the *Lancet*, that he has been able to cure his cases of gonorrhea in five days by using an instrument by which an ointment is made to cover the inside of the urethra. The instrument is modeled after Mr. Allingham's rectal ointment introducer, and consists of an oblong ointment container with a long broad screw to expel its contents. To the box are attached perforated stems of different sizes to fit closely the urethra, which he says must be stretched by as large a stem as can be introduced, so as to spread the ointment fairly and well over every portion. The bladder should be emptied immediately before the instrument is introduced, so that the urethra will be well washed out from behind. The stem is well oiled before introduction, and, when once introduced, the screw is turned, the ointment expressed, and the whole instrument rotated as it is withdrawn. He uses a mixture of oil of

eucalyptus and olive oil. Three hours after using the instrument, a mild injection (he does not say of what) is used, and the ointment-applicator used again the next morning. The only medicine given is a saline aperient.

The principles applied in this treatment are sound, but Dr. Smith's statement as to their efficiency needs confirmation. Certainly cocaine should be used before the instrument is inserted, not only because the use of the latter would itself be painful, but because the oils are irritating.—*Medical and Surgical Reporter*.

#### Creolin in Gonorrhea.

GONORRHEA, which has resisted other treatment, has frequently yielded in Dr. MARGARETTI'S practice to irrigations, twice daily, with a solution of creolin of the strength of 5 to 8 per cent. administered through a hollow sound.—*Lancet*.

#### Ruptures of the Bladder and Their Treatment.

IN connection with a successful case of suture of a laceration of the bladder, M. BLUM (*Arch. Gén. de Med.*) gives some instructive statistics. The cases are naturally divided into intraperitoneal and extraperitoneal. Quoting the statistics of Bartels, out of 75 cases of the second class, 46 were fatal, while of 94 cases of the first class, 93 ended in death. When the rupture is joined with fracture of the pubic bone the prognosis is still worse—130 deaths in 139 cases. The seat of the lesion is variable, being in the intraperitoneal cases almost always posterior, and in extraperitoneal cases generally anterior. In general there is but a single laceration, and this seldom exceeds five centimetres in length, though rarely a double rupture has been seen. The principal symptoms are violent pain in the hypogas-

trium at the moment of the accident and great desire to urinate, without any result. Catheterism generally results in a few drops of bloody urine only, though in a few cases after several trials escape is afforded a considerable quantity of urine, either clear or slightly tinged with blood. In these cases the catheter passes through the laceration and into the peritoneal cavity or into the extraperitoneal collection of urine. In extraperitoneal rupture spontaneous recovery is possible, especially if there is an external wound, and if the patient is not carried off by urinary infiltration and inflammatory complications. In intraperitoneal ruptures left to their own course death is the unvarying result, usually ensuing within twenty-four hours and always within the first week. The diagnosis as to the seat of the laceration is often difficult, more especially if there is no external wound. If to the signs already mentioned there are joined pain all over the abdomen and marked tympanites, the chances are greatly in favor of intraperitoneal rupture. If, on the other hand, there is no tympanites, but if there are marks of urinary infiltration of the abdominal wall, or if a fluctuating tumor above the prostate is made out by rectal touch, the rupture is probably extraperitoneal. In the latter case perineal section and permanent catheterism are absolutely indicated and have given good results. In intraperitoneal rupture all the danger comes from communication between the bladder and the peritoneum, and the treatment is very different. Laparotomy is indicated, and should be done with as little delay as possible, to reveal the size and situation of the rupture, and it should be closed completely by the method of Lembert (the sero-muscular suture not involving the mucous membrane). The toilet of the perito-

neum should be made with care. In twelve cases treated in this way there have been five successes, and Blum's makes one more. He was called in a case of this nature forty hours after the accident, and when the signs of commencing peritonitis were unequivocal. Nevertheless, the recovery of his patient supports the bold line of treatment which should be adopted, in which alone there is any hope of success.—*N. Y. Medical Journal.*

### DISEASES OF THE SKIN.

#### To Prevent Feet Sweating and Swelling.

IN the German army the soldiers are furnished with a powder called *Fussstreupulver*, foot powder, which they are instructed to sift inside and outside their socks and the use of which effectually prevents sore feet by keeping them dry and free from chafes. Those classes who are constantly on their feet should make a note of this. The powder consists of 3 parts salicylic acid, 10 parts starch and 87 parts finely powdered soapstone.—*American Druggist.*

#### Freckles.

JACOBI, in *Archives of Pediatrics*: The physician is frequently asked by lady patients for something that will remove "moth" and freckles. A writer in the *Pharm. Zeit.* says that a wash, consisting of equal parts of lactic acid and glycerine will do the work, and is harmless when applied to the skin.

#### The Alkaline Treatment of Eczema.

ACTING on the principle that acids applied to an acid secreting surface and alkalines to an alkaline surface diminish the respective secretions, Dr. FREDERICK PEARSE states in the *Lancet*, that he has treated cases of eczema for many years by alkaline applications. It may

be termed unphysiological, and that the morbid exudation of eczema has no parallel with the normal secretion of glands. The answer is in the results. There is not the slightest doubt that an acid applied to an eczematous surface will irritate and increase the exudation, and he is satisfied that alkalies judiciously applied will have a contrary effect. Whatever views we may have on the pathology of eczema, the great diversity of methods shows that we have no definite *rationale* of treatment. At the same time, the writer does not argue that alkalies have any "specific" action. No one who has seen much of eczema can doubt that the associated disorder to which these patients are subject is that connected with their digestive organs. The internal treatment is undoubtedly of paramount importance. The one thing, also, which appears most successful is some saline aperient which produces a "weeping" from the mucous surface of the intestines, and hurries on the contents. This clinical fact suggests that the cause of eczema lies in some imperfect process of digestion, whereby some abnormal chemical compounds are absorbed, and, circulating in the blood, irritate especially the skin structures. These compounds are, Dr. Pearse admits, unknown. Not only, however, are saline aperients successful in the treatment of eczema, but alkaline combinations especially so. The most common prescriptions contain these drugs in endless variety. This treatment is very successful for adult life, but is not nearly so useful in the eczemas of young children. In these cases, however, alkaline applications are equally successful in those of riper years, if not more so. Whether the fault in adult life lies in deficiency and that of eczematous children in excess of secretion of acid gastric juice, is difficult

to decide, but the internal administration of alkalies combined with saline aperients in the eczemas of grown up people is that on which the greatest reliance is generally placed. In children, however, an exactly opposite line of treatment will often be found successful. It is especially in scrofulous children and in the general eczema of infants that he has found benefit from the administration of hydrochloric acid. These little patients have generally some palpable digestive disturbance. He has frequently found unexpected benefit from the internal administration of nitro-hydrochloric acid combined with sulphurous acid, and at the same time the external application of alkalies. These latter may be used as bicarbonate of sodium solutions, five to ten grains to the ounce, sometimes combined with small quantities of glycerin, or by weak solutions of liquor potassæ, ten to thirty drops to the ounce. As a general rule, it may be said that the more acute the eczema, or rather the more copious the exudation, the weaker must be the application. It should be applied, whenever possible, continuously. In chronic cases ointments may sometimes be used, such as bicarbonate of sodium, ten to thirty grains to the ounce of vaseline.

#### An Ointment for Scabies.

*Lyon Médical* attributes the following formula to Kaposi: Beta-naphthol, 15 parts; lard, 100 parts; green soap, 50 parts; white chalk, 10 parts. To be rubbed on the affected parts twice a day.

#### DISEASES OF THE EYE AND EAR.

##### A New Method of Corneal Transplantation.

VON HIPPE (*Archiv. f. Oph.; Ophthalmic Review*) thus describes his operation:

The steps of the operation are as follows:

1. Cocaine. Chloroform is objectionable on account of the risk of vomiting. The lids being separated and the globe fixed with conjunctival forceps on the inner and outer sides, the trephine is applied quite vertically to the surface of the leucoma. The trephine recommended is of special construction; it rotates automatically by means of a spring, and demands a minimum pressure on the cornea; its cutting edge is 4 mm. in diameter; large diameters are undesirable, as increasing the difficulties of smooth healing and exposing too large an area of the thin Descemet's membrane. More or less bleeding from minute vessels in the leucoma always follows the use of the trephine; it is best arrested by pressure with small pledgets of cotton wool dipped in sublimate solution and cooled on ice.

2. The trephined portion is dissected off with the help of strong-toothed iris forceps and a Græfe knife. This is the most delicate step in the operation. The end to be aimed at is the removal of a disc of equal thickness throughout, leaving the cut margin vertical and equally deep at all parts of the circle, and retaining as thin a layer as possible of the corneal tissue. The difficulty of this step is increased by the bleeding which follows each touch of the knife; the assistant checks this by applying small pledgets of wool as above described. When the dissection is complete the eye is washed with sublimate solution, closed, and gently compressed in order to arrest all bleeding.

3. With the same trephine, adjusted to cut rather more deeply, a circular piece is removed from the cornea of a young rabbit under the influence of cocaine. [What objection is there to

killing the rabbit immediately before operating upon it?] This step also appears to present considerable difficulty; simple fixation with forceps gives insufficient steadiness to the eye. A squint hook passed behind the globe and pressing it forwards answers better, or perhaps it would be better still to excise the eye and fix it in a suitable support.

4. The prepared graft laid upon the surface of the patient's eye, close to the trephined area, and then gently slid into place, avoiding the entrance of air bubbles between the two surfaces. It is gently pressed down with the spatula, so that it lies evenly in its place. If its surface is a little below that of the cornea no harm follows, but if it protrudes from it the graft is apt to be displaced afterwards. The eye is dusted with iodoform, the lids are carefully closed, and both eyes are covered with a firm pressure bandage which should remain undisturbed until the second or third day, after which it may be changed every twenty-four hours.

After giving some further details of the difficulties of the operation, Von Hippel describes the after progress as observed in eight cases. Four cases failed; three of them through faults in the operation, which experience will obviate, the other through bad conduct on the patient's part after the operation. Twenty-four hours after a successful transplantation there is moderate conjunctival and ciliary injection; the leucoma displays numerous vessels, previously invisible, reaching the margin of the graft, and the tissue here is gray, swollen, and raised above that of the graft. The graft remains transparent, or becomes slightly cloudy without losing its polish. The injection disappears in the course of a week. The groove between the leucoma and the



graft is annihilated by extension of epithelium from the former. Healing appears to be complete at the end of the third week.

The improvement in vision in the patient exhibited at Heidelberg was from counting fingers at two metres to  $\frac{2}{200}$ . Such improvement can only be expected in cases of leucoma not involving the whole thickness of the cornea, for if opaque tissue is left behind by the trephine, it becomes even more opaque as union with the graft takes place; but even in this case the opacity may be partially removed later on, and the result of the operation may still be an improvement of vision.

The operation is impracticable in cases of adherent and bulging leucoma.—*American Lancet*.

#### The Anatomy of the Eye.

THE following summary of the results obtained by BERGER regarding the normal anatomy of the posterior chamber and the suspensory apparatus of the lens, is given in the August number of the *Dublin Journal of Medical Sciences*.

1. The posterior chamber is divided into a space free from fibers of the zonula (prezonular), a second containing them (zonular), and a third lying behind the zonula (postzonular).

2. The prezonular is from 0.2 to 0.4 mm. deeper in the ciliary depressions than in the ciliary elevations.

3. From the zonular portion blind offsets extend into the depressions between the ciliary processes, and reach 1 to 1.5 mm. further back.

4. Most of the fibers of the zonula end in the anterior or posterior capsule of the lens; some, however, in the equatorial portion of the latter. The most anterior and the most posterior fibers of this lenticular band are most

numerous, so that the latter can be filled with a viscid mass—albumin (Hannover's canal). Injected air, or a solution of aniline, passes through the lenticular band to the anterior chamber.

5. The postzonular portion of the posterior chamber is of a capillary nature. Its anterior boundary lies 1 mm. inward from the equator of the lens, its posterior one 2 mm. from the ora serrata. Its anterior wall is formed by the fibers of the zonula or the posterior ones of the lenticular band, respectively; its posterior wall partly by thickened vitreous tissue, partly by fibers of connective tissue (ligamentum hyaloideæ capsulæ). Very delicate, reticulated fibers pass through the postzonular portion; it rarely contains rigid fibers of the zonula.

6. A postzonular (Petit's) canal is formed by detachment of the vitreous produced by an exudation (cyclitis, staphyloma bulbi, glaucoma), or it results from changes after death, or it can be produced by injection. Numerous "rigid" zonular fibers are visible in Petit's canal only in eyes in which putrefaction has begun, or they are the result of an imperfect injection.

7. The posterior portion can be injected with a viscid mass like albumin, or with air, but not with a solution of aniline. When albumin is used, however, it also enters the lenticular bands. The belief is wrong that by injection of the zonula portion of the chamber a "canal godronné" can be produced, the anterior wall of which is formed by the lamina vitrea of the pars ciliaris retinæ.

8. The outer layer of the vitreous is united in the form of a circle, with the posterior capsule of the lens forming a postlenticular capillary space.—*N. Y. Medical Journal*.

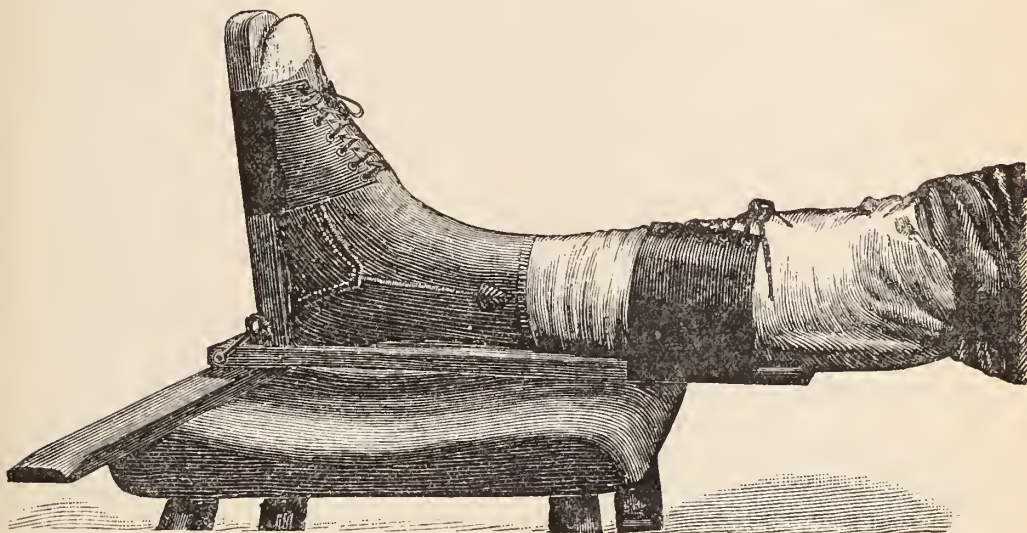
# **FRACTURES, DISLOCATIONS, INJURIES, TUMORS, &c.**

## **A Substitute for Sand-Bags in Treatment of Fractures of the Femur.**

DR. ALEXIS DUPONT SMITH (*Therapeutic Gazette*), of Philadelphia, Pa.

The difficulty in preventing eversion of the foot after fractures of the femur, either in the shaft or neck, is one which has called forth many more or less ingenious forms of apparatus. Probably the most frequent means employed are the sand-bags, which while they some-

A posterior splint, eighteen inches long, shaped somewhat like the leg, with hinged foot-piece, held in place when in use by hooks, is the basis. At the upper end of the splint two pieces of leather sufficiently large to embrace the leg are fastened, having eyelet holes and laces at their free borders. Two similar pieces are fastened to the foot-board to embrace the instep and part of the toes, leaving the ends open for inspection. On the under surface, just beyond the foot-board is fixed a strip of wood twenty inches long and one and a half



times meet the indications, often fail to keep the foot upright, and their inconvenience is more commonly the prominent feature in their use.

Having occasion to dress an intracapsular fracture of the neck of the femur this spring, and having on previous occasions been much annoyed by the failure of the sand-bags to accomplish what was desired of them, I devised the following simple apparatus, which is original with me as far as I know, and I may say that it has been employed in two cases and met the requirements fully.

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to two inches wide, one end held by a bolt on which it may revolve, the other free. When in use this arm extends externally at right angles to the direction of the leg, so that the foot cannot possibly roll outward. A depression at the heel, and liberal padding with cotton throughout, prevents excoriation. The stirrup of the extension straps passes outside the foot-piece and is not interfered with.

In applying the splint, the adhesive strips are adjusted with stirrup as usual, and a roller bandage neatly put on over them. The limb is then raised suffi-

ciently to allow the foot-board to pass between the stirrup and the sole of the foot, and the leg and foot are secured to the padded splint by means of the leather bands. The arm-piece is adjusted at right angles to the leg, and extension applied as soon as the adhesive strips are firmly attached. I am satisfied that by means of this dressing eversion can be prevented, which is not the case with sand-bags, and with much more comfort to the patient and his attendants.

#### Fracture of the First Rib Alone.

DR. F. MARSH, in an article published June 30, 1888, in the *Lancet*, says that he has found four undoubted examples of this injury in less than two hundred subjects consecutively examined in the dissecting room of Guy's Hospital. The subjects were adult and well developed, and in each case the fracture occurred on the right side and in the following places: Case 1 (female). One inch and a quarter extending to the tubercle. Case 2 (male). At a point corresponding to the subclavian groove (united). Case 3 (male). At the sight of the insertion of the scalenus medius. Case 4 (male). Immediately internal to the facet for articulation with the transverse process of the dorsal vertebra. One other case has been recorded, in the article on "Injuries to the Chest," in Holmes' "System of Surgery," third edition, by the late Mr. Lyell. This was a child run over, the left first rib being fractured posteriorly near the neck. We thus see that a fracture of this rib may take place almost at any point, but as yet there are not a sufficient number of cases to show the most common site. The fracture may be caused by direct or indirect violence, and three methods are suggested by Mr. Lane: 1. By

direct violence to the posterior portion of rib. 2. By force applied to the manubrium sterni. 3. By force transmitted through the clavicle.

Undoubted cases of fracture by methods 1 and 3 have come under my notice, and I am of opinion that if a fracture of the first costal arch, rather than of the sternum, is caused by method 2, the cartilage, if ossified, and not the rib itself, will probably be fractured, unless at the same time a counter force is applied to the dorsal extremity of the arch. How is it that this fracture has not been recognized during life? I would refer to a specimen of fractured first rib, shown before the Midland Medical Society, by Mr. A. F. Messiter last session, which may elucidate this question. It was taken *post mortem* from a man who had been run over, several of his ribs on the right side being broken and the lung perforated. The clavicle was intact. Death took place soon after his admission into hospital. There was an almost transverse fracture through the middle of the rib, but the periosteum on one surface was intact, and would have prevented any displacement. Now, Mr. Lane has shown from his numerous experiments on the cadaver that these fractures are usually incomplete, so that I think we may fairly conclude that displacement is the exception and not the rule. In the absence of displacement the symptoms can be but slight, possibly not sufficiently urgent to cause the patient to seek surgical advice. There will be localized pain, varying with the extent of the injury, sometimes vaguely referred to the shoulders, perhaps only felt on certain movements of the shoulder girdle, raising the arm, lifting a weight, etc., but always determinable and definitely localized by careful manipulation, especially in the supra-



clavicular fossa. In the more severe cases, and when the fracture is complete, pain will be felt in addition during ordinary or deep respiration, on coughing, and on putting the scalene muscles into action.

Crepitus may also be obtained, when the fracture is complete and through the anterior half of the rib, by fixing the cartilage as far as possible and moving the rib in the supra-clavicular fossa. Any injury to the lung or pleura will, of course exhibit the symptoms usual in such injuries. The subclavian and axillary vessels have hitherto escaped implication. The diagnosis must be made from contusions of the shoulder, scapula and clavicle; they are often co-existent, and may mark the rib injury in the slighter cases. The treatment I have employed in the few cases that have been under my care is to bandage the arm, as in fractured clavicle, thereby preventing movement, removing the weight of the arm and elevating the clavicle, and in a complete fracture through the anterior half, well padding the supra and infra-clavicular hollows.

In a previous paper I recorded one undoubted case of complete fracture of the right first rib alone, evidently caused by force transmitted through the clavicle; the symptoms were those described above, and crepitus was plainly felt; in fact, the diagnosis was mainly due to discovering this crepitus whilst manipulating the shoulder and clavicle. Two other cases were referred to in that paper, both, I believe, caused by force transmitted through the clavicle. In both instances other ribs were broken. One was a woman who fell down a flight of stairs, finally pitching on to her left shoulder; two or three lower left ribs were broken, and there was every symptom of an incomplete

fracture of the first left rib without displacement. The other was a man who had been knocked down and severely kicked, two of his lower true ribs being fractured, and on the same side the physical signs of fractured first rib. One other instance also came under my notice, which is doubly interesting. It illustrates not only a fracture of the first rib alone posteriorly by direct violence, but the pressure effects of carrying a bulky weight on the shoulder. A man, aged sixty-one, was admitted July 2, 1887, with the following history: He was following his occupation of trusser of hay, when a large truss fell from a height, the edge of it striking him posteriorly at the junction of the neck and shoulder of the left side. Localized pain whenever he attempted to lift any thing caused him to apply for relief. Little or no pain was experienced when the arm was at rest. On examination, one was at once struck with the distance of the superior angle of the scapula from the cervical vertebræ on the left side compared with the other one. The man was in the habit of carrying large trusses of hay on this shoulder, with the arm raised to steady and support them. The bulky weight had caused an almost lateral curvature of the lower cervical and upper dorsal vertebræ, with a certain amount of vertical rotation; the raised position of the arm depressed the superior angle of the scapula, and the muscles from the scapula to the vertebræ were elongated; consequently the first rib posteriorly was unprotected by the scapula, and the hard board-like edge or corner of the heavy truss striking him in this very region had evidently produced an incomplete fracture of this rib. There was no marked contusion of the soft parts, the pain was not superficial, and on careful manipulation could be local-



ized just external to the tubercle of the first rib, and produced by pressure on this spot and by moving the rib in the supra clavicular fossa or with the shoulder girdle. No crepitus could be distinguished.

These four cases occurred during the last six months I occupied the post of casualty surgeon to the Queen's Hospital; and, as the number of casualties coming under my notice in that time would be at least three thousand, the proportion is very much smaller than one would expect from the percentage of specimens obtained from Guy's Hospital dissecting room. It is possible that one or two cases may have been overlooked; the number, however, is sufficiently large to bring the injury into the domain of practical surgery, and to show the necessity of a careful examination of the first costal arch in all cases of shoulder injury exhibiting only the symptom of pain.

#### **Treatment of Furuncles in the External Ear.**

IN a communication to the *Berliner Med. Wochenschrift*, GROSCH praises the effect of acetate of aluminium, freely diluted with water, in the treatment of furuncles in the auditory canal. He fills the canal full of the solution and then closes it with cotton. If the furuncles have already gone to the point of fluctuation, they are first evacuated by an incision. The result has been highly successful, even when both canals have been affected with diffuse furunculosis. In at most four hours after the application has been made, the pain became bearable; after perhaps eight hours it had pretty nearly completely disappeared. After a few days—from two to six—complete recovery occurred in all the cases. No new furuncles, nor any granulation formation, occurred. Furuncles which were still quite firm dis-

appeared without going on to suppuration; those in which pus had begun to form healed through inspissation of the pus and reabsorption. The use of the remedy in such strength as was employed occasioned no injury—at most, occasional temporary itching.—*Wiener Med. Presse.*

#### **A Form of Umbilical Sinus Occurring in Adults.**

DR. A. G. R. FOULERTON (*Lancet*):

Umbilical fistulæ of greater or less extent, depending upon non-coalescence of the urachus or omphalo-mesenteric duct, are described. So also a fistula leading down to an abscess cavity within the abdomen, usually seen in children and often in connection with diseased mesenteric glands. Biliary and fæcal fistulæ may in like manner find their point of discharge at the same spot. The sinus now under consideration, however, does not extend deeper than the abdominal walls; it is merely the normal umbilical depression converted into a suppurating cavity. Its chief clinical characteristic has been a marked obduracy to treatment, depending probably on the fact that its exact pathology has not been understood. The cause of the irritation in four cases of this complaint, all occurring in women, which have come under my notice, has been the same—viz., retained sebaceous matter. The presence of a hard plug of mingled dirt and sebaceous matter can frequently be demonstrated in the umbilicus, especially in persons who give not due regard to personal cleanliness. It will vary in size from a hemispherical mass the size of a small split-pea, lying deep down in the umbilicus, to a larger concretion filling the whole depression, and presenting itself as a black disc, its upper surface being flush with the surrounding skin. This

being so, it is easy to conceive that such a plug may set up considerable irritation, and the suppuration so induced is likely to continue until the cause is removed. Bearing this in mind, the treatment is simple. The cavity should first be thoroughly scraped out, particular attention being paid to the deeper parts; the application of nitric acid will then ensure a healthy granulating surface. For the scraping, a most convenient scoop may be extemporized by inverting a pen-nib in its holder. The cases thus treated have all healed rapidly after having already resisted various other methods. In one of the cases, after application of nitric acid, the sinus still refused to heal. It was then found that what had been mistaken for a large granulation at the bottom of the sinus was in reality an encapsulated mass of sebaceous matter, presumably an obstructed follicle. On this being turned out the whole thing was well within a week. There is yet another form of umbilical sinus, caused by the spreading downward of eczema, but as to the treatment of this I have no experience.—*Medical Analectic*.

#### Surgical Soap.

PROFESSOR REVERDIN, of Geneva, speaks highly of a "surgical soap" prepared after the following formula: R. Oil of sweet almonds, 72 parts; caustic soda, 24 parts; caustic potash, 12 parts; sulpho-carbolate of zinc, 2 parts; essential oil of roses, 9.5 parts.

The preparation consists in slowly adding to and carefully mixing with the almond oil the lyes and the sulpho-carbolate, part by part, until an intimate and homogeneous mixture is obtained. The latter is kept for several days at 68° F. The mass, which gradually acquires the consistence of soft paste, is then divided into any number of por-

tions that may be desired; these are placed in suitable moulds, where they are kept till completely solidified.

#### China Grass, a New Antiseptic Surgical Dressing.

H. BENDELACK HEWETSON, in some remarks on China grass made before the Leeds and West Riding Medico-Chirurgical Society (*Lancet*), states that China grass is a soft, silky, very highly absorbent fibre used in various manufactures. The combings form an elastic silken wool, which, when treated with 4 per cent. of salicylic acid, makes an excellent antiseptic absorbent surgical dressing. It is also relatively much cheaper than, so far as Mr. Hewetson knows, any of the usual dressings used in surgery. Its chief value consists in the way in which it absorbs discharges from a wound, rendering it very dry, and preventing the poulticing of the wound, as it were, when the latter is bathed in discharges under less absorbent materials. A considerable quantity is required in cases in which the discharges are free, and it is perhaps well to interpose some open meshed gauze between the dressing and the wound, so as to prevent the China grass from sticking to the wound when an attempt is made to remove the dressing. He states that he has also observed that, under the pressure of bandaging, the material still retains its absorbent qualities and does not cake when properly teased out.

#### The Treatment of Rebellious Ulcers by Multiple Incisions.

As is well known, the difficulty in healing a rebellious ulcer by cicatrization too often fatigues the patience of both the surgeon and subject. SPAETH has recently proposed a treatment which he pronounces to be a radical cure, although it is not a purely novel one. The

principal difficulty in the cure of chronic ulcers is found in the anatomical structure of their borders, where nutrition is depressed and the circulation insufficient, and, as a consequence, the tissues at these points contain few vessels, possess a fibrous texture, and show no tendency to granulation. Among the classical surgical procedures the lateral incisions of Weber and the circular incisions of Nussbaum are little efficacious, and on such surfaces transplantation of skin is about the only method which holds out any hope of success. In such cases Spaeth and Harbordt (*Revue Générale de Clinique et de Thérapeutique*), divide the ulcer by a longitudinal incision, penetrating into the healthy tissue, then making other incisions perpendicular to the first and of the same depth, dividing the borders of the ulcer at intervals of about three-quarters of an inch. Hemorrhage may be controlled by tampons, and the wound dressed with iodoform. Eight or ten days later granulations will be found springing from the incisions which have now become covered by new epidermis, and, if needfull, transplantation of skin may now be practised with success. It is claimed that this treatment produces cicatrices more resisting than those resulting from other procedures.

#### Pyogenesis.

PROFESSOR S. C. VERNEUIL, to the Academy of Sciences of Paris :

1. Pus is no longer characterized exclusively from the anatomical point of view by its globules, for there have been discovered therein certain elements having a definite form and outline, which can be reproduced at will and multiplied in test tubes just as in the living animal tissues, and which belong to the general class of microbes.

2. If not always present, these

microbes are at least so frequently present that they seem inseparable from the pyogenic process, and constitute in all likelihood the only and real cause of it—a hypothesis almost demonstrated positively by the fact that when introduced experimentally into the organism these same microbes give rise to suppuration and abscess.

3. Pus is sometimes monomicrobial, presenting only one species of micro-organism, sometimes polymicrobial—that is to say, containing all at the same time many different varieties and species: micrococci, bacteria, vibriones, bacilli, etc. In the first, there is no doubt about the pyogenic property of the microbe observed; but in the second, it is still impossible to decide yet if all the microbes present, or only some of them, are capable of causing the suppuration.

4. Until this latter question is settled, it is convenient for the present to separate the microbes thus far observed in abscesses into two classes. In the first class, we may place those which are met with so often, so regularly, and so singularly in the superficial, interstitial, and cystic suppurations as to warrant us in believing that their presence is both normal and necessary if not exclusive; pyogenic microbes properly so called (the micrococci variously grouped and colored, streptococci, zoöglœa, staphylococci orange, yellow, or white, etc.). And in the second class, the micrococci bacteria, vibriones, bacilli, etc., which are undoubtedly met with in pus, but perchance irregularly, whilst they exist normally in the organism in the absence of all pyogenic phenomena, and outside of the centres of suppuration; whether they proceed directly from without, as when they enter a natural cavity, or whether they have invaded the entire economy, as in the instance of those

having been or at present being a prey to a local contamination, or to a general infectious disease; inconstant microbes, abnormal, heterotopic as it were, which may be named in opposition to those of the first category microbes accidentally found in pus.

The author consequently admits the following division of abscesses :

1. Simple abscess, developed under the single influence of normal pyogenic microbes, and containing those only to the exclusion of all other microbes.

2. Infected abscess, caused by the influence, whether of normal pyogenic microbes or of the pyogenic microbes, accidentally dwelling in the pus (I leave as an open question), but in all cases characterized by the presence of these latter microbes, with all the attendant consequences of this microbial juxtaposition.—*Le Courrier Méd.*—*La Gazette Méd. de Montreal*.

#### When to Open a Felon, and How to Abort it.

DR. W. D. HUTCHINGS (*Indiana Medical Journal*):

In order to avoid the mortifying results—necrosis, loss or deformity of finger—following deep seated paronychia, the surgeon must abandon a temporizing policy, and, at the proper time, make boldly a free incision to the pus formation. No half-way measures will answer in this case; the incision must be carried down to the point indicated, and be made sufficiently free to avoid occlusion and retention of pus, by the subsequent swelling of the parts.

The time to incise is an all important point in obtaining a successful issue, and is left indefinite by our best authorities. This trouble is not even noticed in the hand-books of surgery by Smith or Stimson. Surely neither of these writers ever suffered with this exceedingly painful affection, else pages would

have been devoted to its consideration. Is the loss of a finger, the dreadful suffering, the deformity of a hand, of such little moment that the reputation of the surgeon cannot suffer thereby?

The venerated Dr. Gross, in an admirable article in his "System of Surgery," recommends an early operation, but does not designate the day or mention the initial symptom of the disease—a symptom which is the indicator of the day when the lancet should be used. The sensation of a splinter, briar, or foreign body being in the part where the disease is locating, is the initial symptom, and the subject has almost invariably endeavored to pick it before applying for advice.

The time for the free use of the lancet is the fifth or sixth day following the initial symptom. I never, if opportunity affords, defer its use beyond the seventh day. Almost all cases who have applied to me after the eighth day had passed have made a tedious recovery—many with the loss of a phalanx or an entire finger, the bone having been destroyed before the remedy was brought to bear.

The above remarks, of course, apply to whitlow when deep seated. The superficial variety is an easily managed and comparatively a trivial affair. As we do not meet with whitlow in subjects free from systemic derangement, I always resort to appropriate treatment. I address the liver, administer quinine or other remedies, until the evil is overcome.

I will now consider the plan to abort. When consulted during the initial symptom, I seldom fail to abort by inducing absorption from continued pressure of the part. I force absorption by wrapping or binding the finger with a cord or very narrow tape—but prefer a cord of one-eighth of an inch diameter—com-



mencing at the extreme distal end of the finger, and carrying it up to the proximal joint above the local error, and let it remain until pain and throbbing become unendurable, then quickly release the finger, and after resting it a few minutes, again rebind still more firmly in the same manner, thus binding and rebinding for half to three-quarters of an hour, until the finger is reduced to two-thirds its normal size.

By this procedure I have never failed, when the subject presented in time, to abort paronychia, or to convert it into a superficial abscess. If the patient neglects the initial stage, and a particle of pus forms, the lancet is the resort.

#### **Balsam of Peru as a Surgical Dressing.**

DR. ROCKWELL (*Medical Record*):

Three years ago I read an article on balsam of Peru as a surgical dressing, in which the author claimed that he had obtained very flattering results, the wounds healing kindly and without suppuration. The cases in which it was used were those involving solution of surface continuity from injury. Since reading the article I have used balsam of Peru in a number of cases, mainly cases of fingers and hands, cut and bruised in our saw-mills and factories. I have amputated fingers, sewed up cuts and lacerations, dressed mangled and bruised fingers and hands, and have used balsam of Peru as a dressing, and they have healed quickly, with very little suppuration or inflammatory action, and in many cases almost absolutely without either. In cases where the tissues are bruised and mangled, where we would expect a good deal of sloughing, the tissues, instead, become dried and hard, and, after the wound has healed, separate and become detached in much the same way that a scab separates from the surface of a

wound that has healed beneath it. I have also noticed that the balsam has a hæmostatic effect, being quite an effectual agent. I have watched the progress of wounds with this dressing, which is applied on lint or cotton, and it seems to me that the process of healing more nearly approximates nature's method, *i. e.*, healing under a scab, than with any dressing with which I am acquainted. The advantages which may be claimed for it are, it furnishes perfect protection (it practically seals the wound), is clean, has a pleasant odor, does not require to be frequently renewed, for there is almost entire freedom from suppuration, and the results in my hands have been uniformly and eminently satisfactory.

#### **Ligatures at Jefferson Hospital.**

THE ligatures used in Jefferson Hospital are prepared by taking ordinary catgut, immersed in alcohol containing one per cent. corrosive sublimate and five per cent. tartaric acid, for one hour. From this solution, immediately place in oil of juniper berries, where it must remain at least ten days before ready for use. When wanted for use, wipe the gut with a towel wrung out of a solution of bichloride of mercury, 1-1000, and place it in a similar solution, to which has been added twenty per cent. of alcohol; the alcohol prevents untwisting and swelling.—*Coll. and Clin. Record.*

#### **Laparotomy for Gunshot Wounds of the Abdominal Viscera.**

IN the "Transactions of the Medical Association of the State of Missouri," for 1888, Dr. H. C. DALTON, of St. Louis, contributes a case of successful suture of a gunshot wound of the liver. Both the stomach and the liver were injured, the laceration in the latter being through the lower margin of the left lobe at a

point an inch and a quarter from the fissure, leaving a V-shaped wound half an inch deep. The two wounds in the stomach were closed by Lembert's sutures, and the one in the liver was closed by a single catgut suture entering and passing out at least an inch from the edges of the laceration on each side. The man, a negro, aged twenty-two, made a good recovery. The operation was done immediately after the injury, and lasted two hours. The peritonæum was carefully washed with sterilized water. The patient nearly lost his life by hiccough, which, however, was controlled by hypodermic injections of hyoscyamine, 1-120 of a grain. The author gives a very detailed and valuable table of all the cases of laparotomy for gunshot wounds of the abdomen that he has been able to collect. It contains MacCormac's cases in full, with the exception of two which he was unable to find; and he has added others which have occurred since. He points out two errors in MacCormac's table, which he has corrected—the cases of Dr. Mudd and Dr. Carson being entered as recoveries, whereas both patients died. The table includes 69 cases with 27 recoveries and 41 deaths, and 1 result not given. Under the old “do-nothing” treatment less than 8 per cent. recovered, and it is probable that in some of the recoveries neither the cavity nor the viscera were penetrated.

#### Hot Water in Epistaxis.

EPISTAXIS can be frequently arrested by immersion of the part in hot water; the following also can be used:  $\mathcal{R}$ . Acid. tannic.; acid. gallic.,  $\text{āā}$ , 3 j. M. Sig. Insufflate in the nostrils. (SAJOUS.)

#### Dressing of Wounds.

PROFESSOR GROSS uses as a dressing for wounds, when brought together by

sutures and in situations in which other dressings cannot be conveniently applied, collodion containing 10 per cent. of iodoform; this to be painted on after introducing the sutures.

### • • • VENEREAL DISEASES.

#### The Basis of the Present Treatment of Syphilis

Is the theme of Dr. ERNST SCHWIMMER, in the second supplement to the *Monatshefte f. Prakt. Dermatologie*, for 1888. We commend the brochure to our readers as an admirable *exposé* of the modern treatment of syphilis, and very readable withal. The subject is treated under three headings: 1. The preventive or abortive treatment of syphilis. 2. The methodical treatment of syphilis; and 3. The duration of treatment. The author is a firm believer in the specific nature of the infection and the duality of the soft and hard chancre. He is not an advocate of the excision of the chancre, believing that in most cases the induration is the primary expression of constitutional infection. The early treatment of the disease is advocated in order to prevent the worst after effects of the dyscrasia. If the sclerosis is not well marked at first, a purely local treatment may be employed during the first three or four weeks. If a well marked initial lesion is present at the time of the first examination, general treatment should be begun at once. For local treatment caustics should not be used; salol has been found efficacious to promote the healing of the ulcer, and mercurial plaster for the induration. Mercury is the most reliable means for combating the disease, and can be used either internally or externally, preferably the latter, either by inunction or injection hypodermically. The various salts and combinations of

mercury are fully considered in their action and mode of administration. Corrosive sublimate is preferred for internal administration, particularly in pill form. Calomel is useful in the treatment of children, and the following formula is commended: Calomel, Dover's powder, each  $1\frac{1}{2}$ –2 grains; sugar of milk, 45 grains. Divide into ten powders. Of these powders, two to three may be given daily to a nursing infant, and six to nine to a child over one year old, and their use continued for four to six weeks. The protiodide of mercury is less energetic than the bichloride, but useful in slight relapses; while we are cautioned against the use of the biniodide. Tannate of mercury is a reliable salt for internal medication, more active than the sublimate, but not so efficient as the inunction method of treatment. It causes but little disturbance of the digestive tract and can be administered for a long time in the dose of one grain and a half two or three times daily, either in solution or in pill form. The treatment by mercurial fumigation is not regarded with favor, on account of its unhandiness. Mercurial baths are of little service in the treatment of syphilis in adults, but very good in that of congenital syphilis in children, two or three baths a week being given, each containing from eight to forty-five grains of the bichloride, according to the age of the child. Special emphasis is laid upon the inunction treatment of syphilis, some forty-five grains of blue ointment being rubbed into the non-hairy parts of the body. Thirty to sixty rubbings are about as many as can be prudently employed in one series, and then they should be stopped for a while, some preparation of iodine being taken meanwhile. The oleate of mercury is not so active as the blue ointment. The mercurial soaps of

Fanta, Unna, and Oberländer form excellent substitutes for the mercurial ointment and act very promptly. The treatment by hypodermic injection has been tried by him, the various proposed solutions having been employed from time to time. It is a valuable method where the physician wishes to have complete control of the treatment, but does not take the place of the older methods.

The treatment by one or other form of mercury should be continued until the symptoms of the disease have disappeared, and should be thoroughly carried out. The iodides are regarded as rendering good service after a thorough course of mercury. The iodides of potassium, ammonium and iron are those specially useful. The "mixed treatment," so called, is not considered favorably; better results are to be obtained by the separate administration of the drugs. But space will not permit us to go further in abstracting from this practical little work, and we will take only enough to give the author's two summaries, as follows:

*Summary of the Use of Mercury.*—*a.* The most reliable preparation and the most lasting in its effects is the blue ointment, which should be used, where possible, from the beginning of the treatment.

*b.* The subcutaneous injection of mercury is next in reliability, but must be used with caution. The least soluble preparations should be used when there are gummatous or ulcerative processes to combat, or an energetic treatment is necessary on account of parenchymatous syphilitic affections. In the slighter forms of syphilis the more soluble preparations may be used.

*c.* The mercurial soap and Unna's mercurial plaster-muslin are very useful, as is also the tannate of mercury.

d. As a preparatory course for the use of the stronger preparations of mercury, the bichloride of mercury may be given in pill or solution.

e. As intercurrent medication, between two courses of either inunctions or hypodermic medications, the protiodide of mercury should be used.

f. The constitution of the patient should guide us in the choice of our remedies, whether we shall use a stronger or a weaker preparation or dose.

*Summary of the General Treatment of Syphilis.*—1. Syphilis is a chronic disease, and requires a long continued course of treatment.

2. Mercurial treatment should be commenced as early as possible in cases with marked onset; in slighter forms somewhat later.

3. Mercurial treatment should be continued for two or three months. Then the iodide should be given for two months.

4. After four or five months' unbroken treatment, a pause of two or three months should be made. Any local lesions should be treated by local treatment.

5. In relapses the same course of treatment should be followed, only of shorter duration, say three months; if no relapse occurs within the first six months after the beginning of treatment, the second course can be deferred until the eighth to the tenth month, reckoned from the beginning of the disease.

6. The treatment with decoctions is to be employed in diseases of parenchymatous organs if such do not yield to a second course of mercury and iodides.

7 and 8. Balneotherapy and hydropathy are useful at times as final methods of treatment.

9. If the disease continues into the second year, in spite of treatment, a two to three months' course of mercury and iodide is to be gone through with, or one of greater duration if marriage is proposed.

10. Generally speaking, after a year and a half to two years of well directed and early begun treatment, the result will be highly satisfactory.—*N. Y. Medical Journal.*

#### The Treatment of Syphilis.

ACCORDING to the special correspondent of the *Medical Press*, at the twenty-fourth Congress of Hungarian Naturalists and Physicians at Tatra-Fured, Professor EMERICH POOR read an interesting paper on the various methods of treating syphilitic affections. He discussed the question as to whether syphilitic diseases were more properly treated with mercury or with other remedies, and said that iodide was the safest and most harmless drug in the cure of syphilis. Professor Poor has particularly observed the following facts :

1. That the patients, when treated with mercury, first presented the symptoms of mercurial ptialism and gingivitis without being cured of the affection.

2. That the mercury which had been administered in the first stage for preventing the secondary and tertiary symptoms of the disease only exceptionally served as a prophylactic.

3. It was true that the use of mercury seemingly prevented the appearance of the secondary and tertiary symptoms of syphilis, but, on the other hand, the symptoms of the disease, or those of mercurial poisoning, and in most cases both these conditions, were observed after an interval of from two to three weeks in fifteen per cent. of the patients thus treated.

4. With administrations of mercury



an indifferent but toxic substance was introduced into the organism, the excretion of which required a very long time.

Professor Poor, twenty-two years ago, determined on using in the case of syphilis iodide instead of mercury, as the iodide was rapidly removed from the organism and had no toxic influence. During the years 1866, 1867 and 1868 he had treated sixty-five patients after the methods of Sauer, Ricord, and Sigmund,—viz., with protoiodide, mercury, and corrosive sublimate, or with the gray ointment; out of these patients thirty-nine individuals returned to the hospital again, being affected with syphilis or presenting symptoms of mercurial poisoning. Since 1866 his patients affected with syphilis had not been treated with mercury, either internally or with inunctions. The treatment of Professor Poor was the following: After the diagnosis of syphilis had been made the mineral aperient waters of Ofen were ordered as a preparatory treatment, and the patient was directed to take lukewarm baths. The iodide was used as a medicament under the form of a mineral water after the following prescription: *R.* Distilled water, from 300 to 1000 grams; bicarbonate of sodium; sulphate of sodium; iodide of potassium,  $\text{āā}$  from 3 to 10 grams. *M. S.*—From 1 to 2 large spoonfuls thrice a day.

This dose used to be augmented by one spoonful each week, when with a dose of 6 spoonfuls the symptoms of syphilis did not begin to disappear, the dose was augmented to from 7 to 8 spoonfuls, and only exceptionally it had to be augmented to from 9 to 10 spoonfuls to cause the syphilitic symptoms and the chronic infiltrations to completely disappear. From one to two soap baths were ordered each week.

The bubo indolens disappeared after the washings with the tincture of iodide.

By the procedure under consideration the lecturer had succeeded in removing the syphilitic symptoms of the first stage in an interval of from two to six weeks; in the second stage, of from five to ten weeks; and the third stage, of from two to six weeks.

The advantages of the treatment of syphilis with iodide were the following: 1. The treatment with iodide was never attended with pytalism, affections of the gums, pharynx, etc. 2. Iodide intoxication never occurred when the above mentioned diluted mineral water was resorted to. 3. In the treatment with iodide, the outbreak of the secondary symptoms had not to be waited for; on the contrary, the influence of the iodide was the more rapid the earlier it was used, and it was best to use it in the primary stage of syphilis; Professor Poor was even of the opinion that the first stage of syphilis until the tenth day of the outbreak could be rendered abortive by the use of iodide. 4. There was no relapse of the syphilis under this course of treatment.

#### DISEASES OF THE SKIN.

##### Finger-Nails and Nail-Brushes.

A PAINSTAKING German physician, Dr. MITTMANN, of Würzburg, has published in Virchow's *Archiv* a remarkable paper bearing the remarkable scientifico-naturalistic title "Untersuchungen von Fingernägelschutz auf Mikroorganismen." Although this contribution cannot be said to be based on painful experiments on live animals, a certain section of society will hold that there can be little poetry in those who make researches for micro-organisms in finger-nail dirt. Yet nails can scratch, and scratches may undergo

troublesome pathological changes; moreover, as some authorities have insisted, the nails may seriously affect operation mortality, for they can convey bacteria in particles of dirt unremoved by the nail-brush. Dr. Mittmann has found that germs abound under the nails of persons pursuing dirty occupations and of careless schoolboys. He cultivated the adventitious matter from the nails of twenty-five subjects, in agar, gelatine, and blood-serum. Micrococci were almost invariably present, and next in frequency came diplococci; in only eighteen cultivations were bacilli found, and sarcinæ appeared in three. Moulds abounded and grew freely on cultivation. The subjects were grouped as follows: 6 rag-sorters, 4 female cooks, 3 waitresses, 7 schoolboys, 2 barbers, and 3 undertakers' assistants. The degree of septic virus must vary greatly in groups which represent such different conditions. The use of the nail-brush in private life needs no advocate in this country: on the other hand, it is questionable whether that toilet article may not be a source of danger in hospitals and medical schools. A dissecting-room or ward nail-brush is as likely to convey as to remove septic matter. Possibly it is better to rub the nails on the surface of a piece of antiseptic soap during ablution, subsequently employing a penknife, if necessary, than to use a nail-brush under these circumstances.—*Med. Med. Journal.*

#### The Value of Salicylic Acid in Dermatology.

DR. C. HEITZMAN, of New York, read a paper on this subject, in which he said that he had been using the remedy for the last three years, in conjunction with his son. It had two well-marked properties. The first was the peculiarity of acting on the horny layers of the epidermis. There was no

agent so active in softening, and at last destroying, the epidermal formations as was salicylic acid. Its other action was as a parasiticide. These two properties opened a large field for research. We should be careful not to include cases where we had merely impressions as to its value; but there were many cases in which there could be no question as to its utility, and in some of these it had never been used before. The remedy might be used as a powder, as a plaster, or in the alcoholic solution. It had the advantages that it did not discolor the skin or linen, and had no odor. It was used in twenty-four kinds of cases. In hyperidrosis its action was well known. The German soldiers used it in a one per cent. salve of tallow, applied to the feet when upon the march. In seborrhœa, especially when combined with acne, it had given brilliant results. One per cent. of the acid with six to eight per cent. of sulphur was an excellent application for dandruff. A prescription with tar the reader liked better, but it was less agreeable to the patients. In urticaria it was an excellent means of allaying the itching. In furunculosis an ointment of six to ten per cent. had prevented an outbreak and checked the disease. But, to be sure of results, the quality of the acid must be guaranteed. In two cases, where the prescription had been filled at random, there had been no good result, but when Scheering's salicylic had been substituted the effect had been immediate.

In one case of dermatitis herpetiformis, a lotion of the acid had proved the best thing the patient had tried, although it had not been capable of smothering the disease or preventing recurrences. In psoriasis, after the chrysarobin and tar, it was the very thing to be applied, though the peeling

off of the scales was not so rapid as with other remedies. In lichen planus salicylic acid was far superior to carbolic acid or corrosive sublimate. It could also be applied over a larger area with safety. It allayed the itching, removed the scales, and flattened down the papules. The author had prescribed three per cent. solutions, which were to be diluted at the beginning of treatment. Six cases were treated, and all did uniformly well without the administration of arsenic.

In all varieties of eczema the results had been satisfactory. Ninety-six cases had been treated, generally by the use of one per cent. of the acid, with equal parts of zinc powder and starch, in two parts of ointment. If it was eczema madidans, one-half per cent. was better. Sometimes it might be used as high as ten per cent., where there was great thickening in the very chronic cases. As the acid did not attack the connective tissue, there could be no caustic effect. In acne a three per cent. solution would remove pigment patches, assist in removing comedones, and render the skin soft. In acne rosacea the results were good, but in sycosis less good. The remedy did not seem to penetrate deep enough between the furrows. In impetigo contagiosa it was the remedy which would cure the disease in ten or twelve days. If combined with the liquor gutta-perchæ and some oil to make an emulsion, it would adhere to the skin. In keratitis senilis callosity, clavus and veruca, its action in removing the thickened portions was well known. In ichthyosis it was easy to remove the scales, but they would return. In lupus erythematosus and lupus vulgaris the results had been brilliant at first, the excrescences flattening down rapidly at first, but not a case had been cured. For pruritus, in

the shape of a lotion, it was excellent. In tinea the solution with gutta percha was better than Taylor's remedy. But generally the disease would not be cured by any one remedy, and we were only too glad to have more than one. In tinea versicolor a one per cent. solution was effective.

Dr. Pye Smith, of London, spoke of his use of the remedy in the hypertrophic inflammations in the soles of the feet and the palms of the hands where there were fissures; here the effects of the remedy were wonderful. He could corroborate what Dr. Heitzman had said in reference to the use of the remedy in furunculosis, especially as it occurred in youths or school boys sometimes for months together. He believed that the contagion was carried from one point to another in the dressing. In the treatment of the individual pustules he always hardened the surrounding skin by bathing it in lead lotion, thus giving less opportunity for the invasion of the micro-organisms than did the old method of poulticing, which made the skin sodden and readily permeable. In lichen planus he had tried the salicylic acid with some success, but had found it difficult to follow the cases closely enough to be sure. In general, he felt that there were not enough cases to warrant definite conclusions. The speaker expressed his gratification at the reception he had received, and at the progress which dermatology had been making in this country within the past few years, and he felt that that progress was small compared with what would be accomplished in the years to come.

#### DISEASES OF THE EYE AND EAR.

##### Treatment of Xanthoma.

DR. ERNEST WENDE reports two cases of xanthoma in the *Medical Press*

of *Western New York*. In one the disease was of the plane variety and in the other of the tuberos, both situated upon the eyelids, near the inner canthi. The method of treatment adopted was to insert laterally, at various points, into the neoplasms, in a direction parallel to the outer surface an electro-negative needle made of gold. The positive electrode was held in the hand. After one sitting, the author claims that the xanthomatous plaques and nodules darkened in color, and the crusts which formed began to fall off on the eighth day. The skin was left perfectly smooth with no trace of either scar or remaining growth. Each sitting lasted twenty minutes, but unfortunately we are not informed of the strength of the current used.

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**Creoline, Iodoform Ointment and Antipyrine in Eye-Practice.**

In the *Centralblatt für Augenheilkunde*, Dr. MERGL states that creoline has been employed, in one per cent. solution, in acute and chronic conjunctivitis, in trachoma, and in ulcers of the cornea. In acute catarrhal conjunctivitis, the conjunctiva of the lower lid was brushed with a one per cent. solution twice a day; in most cases the redness and swelling of the conjunctiva disappeared in one or two days, the secretion lessened, but did not entirely disappear. He therefore thinks it better, after two or three days, to change the creoline solution for one per cent. nitrate of silver or sulphate of zinc. In chronic conjunctivitis creoline gave no favorable results. In four cases of trachoma the creoline appeared to act as a true specific—the redness and swelling disappeared in from two to four days, the purulent discharge in a week, and the granulations in from two to three weeks. In other cases the red-

ness and swelling disappeared, but the granulations would not yield; in some cases the disease was aggravated. Mer gl now begins the treatment of acute trachoma with creoline; if improvement does not progress rapidly, he changes it for nitrate of silver and copper. In trachoma combined with panus or corneal ulcers, creoline is an excellent remedy; under its influence the ulcers become clean, the panus recedes, and in conjunction with the use of atropine the ulcers are healed.

Although creoline very often brings about a cure of corneal ulcers, it also frequently fails. On the other hand, the ten per cent. iodoform-vaseline ointment employed by Dr. Kanka, is an invaluable remedy in ulcers of the cornea, especially in hypopyon. Upon the closed eye a piece of gauze spread with iodoform ointment is laid, and fastened with a bandage. Under the use of this bandage the pain diminishes, the ulcers become clean, and the hypopyon disappears in two or three days. Of fifty cases of keratitis with hypopyon under Dr. Kanka's care during two years, in only two was the pus evacuated by paracentesis. On the advice of Dr. Adolph Aldor, antipyrine was employed to clear up cicatrices on the cornea. As it caused burning, cocaine was first instilled into the eye and then the cornea dusted with antipyrine in the form of powder. After the flow of tears ceased, which occurred in a few minutes, massage of the cornea was practised. The result obtained was good. In the case of a child which, after an attack of small-pox, was affected with opacity of both corneæ, the procedure just described was employed; after three months the child's vision had increased from inability to see any thing, to ability to walk alone and to recognize small objects, such as a watch and half-penny.



The result was similarly favorable in two other cases.—*Wiener Med. Presse.*

#### Why Deafness from Spotted Fever is Hopeless.

THE labyrinth is the part to which the auditory nerve is distributed. The membranous structures in the bony labyrinth are supposed to be continuous through the internal auditory meatus with the membranes of the brain. It occasionally happens that the acute inflammation of the meninges extends along the auditory nerve into the labyrinth, causing complete destruction of the membranous labyrinth to which the auditory nerve is distributed. This of course causes complete deafness and explains why such cases never get well. I do not remember ever to have seen a case of partial deafness from cerebrospinal meningitis. If the hearing is involved at all, complete deafness is the result. Neither do I remember ever to have seen a case where only one ear became deaf from this disease. The wonder is, considering the close anatomical connection, that the labyrinths are so rarely involved and never one labyrinth only.

Treatment in these cases accomplishes absolutely nothing for the reason that the hearing apparatus is totally destroyed.—*St. Louis Med. & Sur. Jour.*

#### The Limits of Hearing.

IN the *Glasgow Medical Journal*, Dr. J. KERR LOVE communicates an elaborate inquiry into the limits of hearing. A summary of his paper is as follows:

1. Notes produced by 15 or 16 vibrations per second are the lowest which can be heard by the human ear. The difficulty of producing vibrations of sufficient amplitude to make such notes heard is great, but it is probable that

sounds caused by a smaller number of vibrations are perceived as separate impulses and not as true musical sounds. Many ears cannot hear notes caused by less than 24 vibrations.

2. The most powerful very high notes are produced by very small tuning-forks, and by them a vibration number of over 40,000 has been heard by Dr. Preyer and a few other observers. Other and more convenient means for producing very high notes are Mr. Galton's whistle and the small open pipes which the author has described in this paper. These tests show that most ears can hear nothing when the vibration frequency is over 30,000 per second. Many are deaf to notes produced by more than 20,000, and some to notes of 15,000 vibrations; in a few cases deafness to notes of 5,200 or 5,500 vibrations has been recorded.

3. The least observable difference in pitch is for untrained or slightly trained ears difficult to state, but (exclusive of cases of tone-deafness) it may be put down as from 1-6 to 1-40 semitone. The ears of such trained musicians as violinists, tuners, and some pianists, can perceive with certainty a difference of 1-64 to 1-80 semitone. All observers, but especially the untrained, detect sharpened better than flattened intervals. Generally speaking, Weber's Law holds good for all but the highest and lowest parts of the musical scale.

4. No quite satisfactory test has yet been found for the distance at which a sound of constant intensity can be heard. Politzer's Acoumeter is the best and most convenient test, and is heard by normal ears in almost perfect stillness at a distance of  $49\frac{1}{2}$  or  $52\frac{1}{2}$  feet.

5. Cases of tone or note deafness (deafness to intervals of a whole tone or more) are very rare, but some well authenticated instances are recorded.

# THE AMERICAN MEDICAL DIGEST.

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## DISEASES OF WOMEN AND CHILDREN, AND OBSTETRICS.

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### DISEASES OF WOMEN.

#### Treatment of Vaginismus.

DR. THOMAS MORE MADDEN, in the *Dublin Medical Journal*:

Excessive sensibility of the vaginal orifice and adjacent parts, more especially when associated with such spasmodic contraction of the sphincter vaginæ as to form an impediment to marital intercourse, or dyspareunia, occasionally becomes a matter of gynæcological interest.

With regard to the pathology of vaginismus, there are almost as many divergent views as there have been writers on the subject. Thus, according to Sims the symptoms are almost always neuromatous, whilst Alonzo Clarke, who examined the vaginismus hymen frequently, could not find any enlarged nerve filaments running through it. Tait made 11 dissections, and found only in one of them a trace of the muscular fibres supposed to produce the affection. He believed it due to fright or to disease of the vestibule, of which the most common is serpiginous vascular degeneration of the mucous membrane—an obstinate disease, ending in atrophic contraction of the vestibule. Sims says: "The most perfect exam-

ples of vaginismus that I have seen were uncomplicated with inflammation; but I have met with several cases in which there was a redness or erythema at the fourchette. Usually the hymen is thick and voluminous, and when the finger is forced through it, its free border often feels as resistant as if bound by a fine cord or wire."

According to Emmet, vaginismus is to be regarded purely as a symptom, denoting reflex irritation, of which the chief expression is an exaggerated sensitiveness about the hymen and vaginal outlet. As the irritation is transmitted through the sympathetic nerves, the effect is experienced at its terminal branches in the erectile tissue. It is found in anæmic and excessively nervous women, and in those who have overtaxed their nervous systems. Their general condition renders them peculiarly liable to neuralgia, of which the symptom under consideration is but a kindred ailment. The locality is determined by accident, or by some law of which we are ignorant. "It is an exception," adds Emmet, "to find any local exciting cause; occasionally there may be some cicatricial tissue about the perinæum or neck of the uterus, or some local inflammation or disease of the

vagina, vulva, meatus, urethra, or vesical neck." Dr. Graily Hewitt, on the other hand, is of opinion that the essence of the disease is a local alteration or irritation of the nerves at the spot itself; he also points out that the condition in question is a hyperæsthesia of the parts, dependent not always on the same cause. The difficulty experienced in introducing the finger is dependent on the spasmodic contraction of the muscles.

For my part I think the most rational explanation is to be found in the hysterical temperament of the majority of those thus affected, although in some cases there is also present an abnormal condition of the pudic nerve, one branch of which runs along with the artery to the clitoris, whilst the other, or superficial perinæal nerve, is distributed to the perinæum and labia.

Every case should be treated on its own merits. As a rule, undue importance is given to local operative measures, for while operative measures directed to the hyperæsthetic structure and adjoining parts—such as the excision of the hymen, division of the pudic nerve, destruction of erythematous and serpiginous patches, dissections out of neuromata, etc.—may each be indispensable in certain cases, in as many instances they are unnecessary; and I can vouch for the possibility in some cases of relieving the most intense dyspareunia resulting from this cause, so as to enable the patient to fulfil all her duties as a wife without any operation beyond the forcible mechanical expansion of the vaginal canal. Before resorting even to this expedient we should, in the first place, employ the sedative treatment, local and general, which is indicated in all other local manifestations and consequences of constitutional nervous or hysterical disorders, and which I

believe, is the only essential in nine-tenths of these cases.

Amongst the topical palliative remedies that may, conjointly with the constitutional nerve sedatives, be employed, are the bi-daily use of warm baths and vaginal irrigations, the local application of a 5 per cent. solution of hydrochlorate of cocaine, or of glycerine of carbolic acid, or the introduction of suppositories of cocaine and belladonna. When such palliative measures have been tried without advantage, we may then resort to mechanical dilatation of the vaginal orifice and stretching of the pudic nerve. For this purpose, having first fully etherized the patient, a large sized speculum should be introduced and expanded to its fullest extent. Then a tampon of absorbent lotion large enough to fill the speculum should be soaked in glycerine and passed up to the cervix, its lower end projecting through the external opening of the instrument. This, still fully expanded, should then be forcibly drawn out, leaving the central tampon behind in the vagina. It need hardly be observed that this occasions severe pain; however, it as certainly tears through some of the superficial submucous muscular fibres of the affected part, as well as effectually stretches the terminal vaginal branches of the pudic nerve, and thus affords a generally efficient method of overcoming the spasmodic contraction with which we have to deal. Any subsequent contraction or hemorrhage that may follow is sufficiently met by the tampon, which may be retained for at least 24 hours; and after some days, should there be still a continuance of vaginismus, the same method may be repeated.

In other cases, this treatment does not suffice, and I have with advantage, resorted to Sim's operation. This con-

sists in the removal of the hymen when present, which may be readily dissected out with a properly curved scissors, after which a vaginal glass or vulcanite plug must be worn until the parts are healed. The cicatrix resulting from this operation is then to be divided. For this purpose we must place the patient (fully etherized), as for lithotomy, on the back; pass the index and middle fingers of the left hand into the vagina, separate them laterally, so as to dilate the vagina as widely as possible, putting the fourchette on the stretch; then with a common scalpel make a deep cut through the vaginal tissue on one side of the mesial line, bringing it from above downwards, and terminating at the raphe of the perinæum. This cut forms one side of a Y. Then pass the knife again into the vagina, still dilating with the fingers as before, and cut in like manner on the opposite side from above downwards, uniting the two incisions at or near the raphe, and prolonging them quite to the perinæal integument. Each cut will be about two inches long—*i. e.*, half an inch or more above the edge of the sphincter, half an inch over its fibres, and an inch from its lower edge to the perinæal raphe. Of course this will vary in different subjects. To perfect the cure it is necessary for the patient to wear for a time a bougie or dilator. Introduce the speculum under the arches of the pubes, so as to bring the posterior wall of the vagina into view. The index finger is inserted within the anus, and the sphincter is pressed up against the posterior wall of the vagina. It is then easy to divide with scissors the fibres encircling the vagina on each side, just within the fourchette, and about three-quarters of an inch apart. This does not allow a prolapse of the vaginal wall, as when the perinæum is lacerated,

whilst it permits of an extent of dilation of the outlet by the glass plug.—*Arch. Gynæc., Obstet. and Pediat.*

#### Vaginal Injections in Sims' Posture.

DR. FRANK P. FOSTER, of New York, read a paper on this subject, before the International Medical Congress, saying:

The value of large vaginal injections of hot water in the treatment of inflammatory conditions of the pelvis is now recognized. Even when the rules ordinarily laid down are faithfully carried out it is possible that the efficiency of this measure may be still further increased. The main desiderata are the penetration of the water to a position closely contiguous to the seat of the disease, and its application in a quantity sufficient to secure the maximum action of the heat. To fulfil these requirements the speaker had used the injections with the patient in the Sims' posture, or rather in a posture somewhat more prone than that of Sims. With the woman in the dorsal position the quantity of water in the vagina at one time is decidedly smaller than that which is required to fill the canal when it is distended by atmospheric pressure, as occurs when opening the introitus with the patient in the Sims' posture. It seems reasonable to suppose that the effect of a large quantity of water in the vagina will be greater than that of a small quantity. When the injection is concluded this large quantity of water can be retained for some time. The greatest advantage is, however, the gravitation of the abdominal contents towards the diaphragm, thus bringing the hot water in closer relation with the diseased parts. With the ordinary appliances there is some objections to this procedure, but with the vaginal douche described some years ago by the author, there is no difficulty.—*Jour. Amer. Med. Association.*



### Artificial Fecundation.

PROFESSOR PAOLO MANTEGAZZA communicates the results of his rich experience in a leading article in the *Gazzetta degli Ospitali*, of Milan. He says that the act of artificial fecundation in itself requires no special skill, but that it is important to be able to determine with certainty whether there is hope of a successful result or not. There is always great repugnance on the part of both husband and wife to the operation, and therefore it is clear that unless there is good hope of success, it should be abandoned. It must first be determined whether the obstruction to conception rests with the husband or wife; and in this connection it is well to recollect that impotence is only rarely confessed. For example, the author once saw by accident that a man who was otherwise robust, but childless, had an extremely short penis. Here, if ever, was a suitable opportunity for artificial fecundation, because his wife had the appearance of blooming health; but the author was not successful in persuading them to it. In another case, the penis was of the proper length and strength, but the semen, on account of stricture or some other cause, was only expelled in drops, so that it with great difficulty reached the uterus. Also, in men with only half or very slight power, the semen only reaches the anterior part of the vagina, and so sterility results. After the man is questioned with the utmost exactness upon the manner in which coition is completed, the semen must be examined microscopically. In this respect Mantegazza thinks he has discovered a new fact. In one case, having several times endeavored to obtain artificial fecundation in the same woman without success, although the semen had a good appearance and proper reaction, and the spermatozoa were numerous

and active, he noticed that the crystals, which he first noticed in 1860,<sup>1</sup> but which were first described by Böttcher, did not appear when the semen was allowed to stand. He is disposed to think that such absence constitutes an anomaly which deprives the semen of its fructifying power.

With reference to the causes of sterility in the female, he would divide them for the most part into two classes: mechanical and functional; and while not disposed to think the existence of the former class a contra-indication to artificial fecundation, thinks the latter class, which can be placed under the head of dysmenorrhœa, is. He admits that there are many cases of dysmenorrhœa which depend upon mechanical difficulties, which dilatation of the cervix will cause to disappear. As far as sterility is concerned, the worst cases are those in which removal of the dysmenorrhœa by mechanical measures does not result in fertility. In such cases Mantegazza thinks the fault lies with the ovum. Of what use is it, says he, to introduce semen into the uterus, if it finds there no ovum capable of fructifying? According to the author, artificial fecundation may be indicated in the following cases: 1. Hypospadias. 2. Very short penis. 3. In cases in which the semen is discharged without the necessary force, or in drops. 4. In all cases in which a decided change in position of the uterus, or a very narrow cervical canal hinders fecundation. 5. An unsuccessful treatment of the cervical canal by dilatation forms no contra-indication to artificial fecundation. 6. In all cases in which dysmenorrhœa persists, and yet the cause of the sterility remains unknown.

After stating that he has found that it is generally the man who objects most to the operation, on account of the

rather humiliating role which he is required to play, the author says that during the eight days following menstruation is the best time for the operation, which, if unsuccessful then, may be tried the day before menstruation. The method of obtaining the semen, which Mantegazza has found the best and most seemly, is the following: The husband has connection with his wife, but instead of emptying the semen into the vagina, he deposits it in a glass, which stands in water at a temperature of from 98° F. to 103° F., and then calls the physician. The latter then introduces a Fergusson speculum and makes two or three injections with Roubaud's syringe. The patient may then be advised to stay in bed several days, with the pelvis raised, though this does not seem necessary.

The author has never seen untoward results from making three injections, and thinks the fear expressed by other writers unfounded. After coitus, the mouth of the uterus was generally found not completely closed; if the act was entirely natural ("without Malthusian retraction"), semen was always found in the posterior vaginal *cul-de-sac*; it is possible then to cause the semen to flow into the mouth of the uterus by means of the speculum, especially if retroflexion exists. In case the wife should positively refuse to let the physician interfere, Mantegazza would then propose that the husband attempt fecundation in this way, though he warns against allowing the husband to use Roubaud's syringe.—*Deutsche Med.-Zeit.*  
—*Medical and Surgical Journal.*

#### Inflammation of the Bladder and Urethra, from Abnormal Conditions of Uterus.

DR. C. W. LEIGH (*Medical and Surgical Reporter*):

Frequently in the examination of patients suffering from abnormal con-

ditions of the female generative organs, such as lacerations, displacements or ruptures, we find the conditions giving rise to the greatest amount of inconvenience and suffering, are those referring to the urethra and bladder: these varying in the same individual at different times, according to the duration of this diseased condition and the causes operating.

Hyperæsthesia manifests itself by a feeling of heat and weight, which may or may not be constant; a desire to urinate often, the quantity passed at each time being small and followed by a scalding or burning sensation, with vesical tenesmus. This condition may continue for an indefinite length of time without producing serious structural changes, but eventually all the above mentioned symptoms become intensified, and genuine inflammation is developed, with the accompanying aggravating phases of the same.

Often it is a matter of some difficulty to draw a line between hyperæsthesia and actual inflammation, and in such cases it is not a matter of practical importance to differentiate, the treatment of each in such an event being very much the same. In perhaps a smaller proportion of cases, true cystitis, urethritis, or both exist, although of a type peculiar to these cases.

When there is general pelvic congestion from any cause, the bladder is quite liable to participate.

In lacerations of the cervix, ruptures of the perineum, or in any condition where the uterus is made to assume an unnatural position, it sinks lower into the pelvic cavity, and, by the pressure it exerts upon the veins, retards the proper return flow of blood from the uterus. In other words, mechanical congestion results, which may terminate in inflammation; nutrition is imper-

fectly performed, ulceration follows, and an unhealthy discharge takes place.

This condition gives rise to hyperæsthesia of various parts of the body, but especially of the pelvic viscera and markedly the bladder. The mechanical pressure exerted upon the bladder by a displaced womb is not so frequent a cause in these cases as is commonly supposed.

In retroversion, manifestly there is greater pressure upon the rectum than the bladder, while the latter suffers more than the former. Yet each are excretory organs, performing their functions in a similar manner, and are identical in anatomical structure, *i. e.*, each is composed of four coats: serous, muscular, cellular, and mucus.

A very important factor to be taken into consideration, and one very frequently overlooked, consists in the unhealthy discharges from the uterus and vagina coming in contact with the meatus and urethra, acting as an irritant and causing their inflammation. Urethritis is often produced in this manner, which in turn is followed by hyperæsthesia and inflammation of the bladder. Of course these are results of a mere important lesion. The treatment should be both palliative and curative. Displacements should be corrected by properly tamponading, etc. Lacerations and ruptures should be repaired, and an operation performed for the relief of the same. In the correction of displacements and preparatory treatment for gynæcological operations, the use of "antiseptic wool" is to be preferred, inasmuch as it does not pack into a hard mass, but forming a soft elastic cushion supports the uterus better than cotton does, and at the same time admits of a more perfect circulation. It can be medicated if desired, or placed in position perfectly dry. It is freed

from oil and foreign substances, and rendered antiseptic by a solution of biniodide of mercury. This method of treatment has been well described by Engleman of St. Louis, and Etheridge of Chicago.

The palliative treatment consists, in addition to the above, in the employment of remedies directed to the diseased mucous membrane of the bladder and urethra, and none fulfill this purpose any better, if so well, as the preparation of *hydrastis canadensis*, commonly known as fluid *hydrastis*, a concentrated fluid without alcohol.

By the process used in the manufacture of this article, the alkaloids in their native combination are said to be retained while the resin is rejected.

Seemingly better results are obtained in these cases from the internal administration of the drug in the proportion of one to four drams to four ounces of water, a teaspoonful four times daily, than from its local use.

In a patient recently under my treatment aged 28 years, who had five years previously sustained a laceration of the cervix and rupture of the perineum, presumably by the use of forceps, urethritis and cystitis followed among the results.

Surrounding the meatus was a swollen and well marked deep red zone, extremely sensitive to the touch; slight supra-pubic pressure produced quite severe pain, and with the finger in the vagina making upward pressure, it was still greater.

Introduction of the finger or speculum into the vagina, either for the purpose of examination or treatment, was always preceded by the local application of a four per cent. solution of cocaine hydrochlorate to the mucous membrane surrounding the meatus urinarius, and by the injection of sev-

eral drops into the urethra. This afforded considerable relief to the patient on these occasions.

The cervix and perineum were prepared for operation by local applications, tamponading with "antiseptic wool," administration of tonics, laxatives, etc. Specially for the relief of the bladder and urethra, fluid hydrastis was prescribed, both internally and as an injection.

The patient improved quite rapidly and both operations were performed at one sitting, Dr. J. C. Pickard, of this city, and others assisting.

In a short time the generative organs recovered their normal condition and functions, but the cystitis and urethritis continued after the removal of the immediate cause.

If from any reason the internal administration of fluid hydrastis was discontinued, she became worse, but immediately improved when it was resumed.

The same was not true of the injection, although it was beneficial without doubt. Now, at the end of eight months, what appeared as the predominating factor in the case has disappeared and the patient is fully recovered. The preparation is certainly a valuable one, and seems to have a special action upon the entire urinary tract.

It is especially useful in the class of cases just referred to.

#### Effects of Hot Water Upon the Uterus.

As a result of his experiments upon rabbits, M. MILNE MURRAY, in the *Revue Médicale*, reports that :

1. The non-gravid uterus of the rabbit is subject to rhythmical contractions, one every two minutes.

2. The introduction of water at 105° to 110° F. produces an immediate state of tetany of the uterus, lasting from five to thirty minutes.

3. The muscular contraction is accompanied by simultaneous contractions of the smaller vessels, and the organ becomes ex sanguine. The contraction of the vessels disappears gradually before the muscular spasm, and is not followed by dilatation.

4. Water, at 32° to 42° F., produces after thirty to fifty seconds, a less energetic spasm than water at 105° to 110° F.

5. The spasm is easily reproduced at short intervals by stimulating the uterus with hot water. It is not reproduced at a long interval by hot water.

6. A faradic current of short interruptions acts in the same way as hot water, and produces tetany.

These results serve to explain the employment of irrigation in the treatment of uterine affections.—*Medical Press.—Therapeutic Gazette.*

#### Obstinate Vomiting not Connected with Pregnancy; Dilatation of the Cervix Uteri.

BOISSARIE (*Ann. de Gyn.*) remarks that ten years ago Copeman published in the *British Medical Journal* a series of cases in which obstinate vomiting in connection with pregnancy was relieved by digital dilatation of the *cervix uteri*. It occurred to the author that the same plan might be applicable in cases of obstinate vomiting not associated with pregnancy. This method was therefore adopted in a case which he has narrated in this paper with a perfectly satisfactory result. The sympathy which exists between the uterus and the stomach explains the success of this plan of treatment. This sympathy, which is most evident during pregnancy, is manifested in some women with each recurring menstruation. Dilatation is therefore a rational means of treatment for troublesome vomiting in women, not only during pregnancy, but also during menstruation, and at other times.



**The Gradual Preparatory Treatment of the Complications of Urinary and Fecal Fistulæ in Women.**

DR. BOZEMAN summarizes his article read before the International Medical Congress, as follows :

1. The importance of the complications of fistula has not been duly appreciated. They form in many cases the principal difficulty in the way of the successful performance of the operation, for the closure of the fistulous opening. In other cases, when the fistula is cured, but the complications left without treatment, they lead sooner or later to suffering or to the death of the patient. The greater care should, therefore, be taken to discover and remove them.

2. Kolpopleisis, occlusion of the os uteri, and incarceration of the cervix in the bladder or rectum, are unjustifiable operations. They destroy the functions of the genital organs, and lead to cystitis, the formation of renal and vesical calculi, pyelitis, and other grave diseases. Moreover, they are unnecessary operations. By means of the gradual preparatory treatment of the complication, and, by the aid of my button suture, and dilating speculum, I have been able to overcome all the difficulties which have been described as indications for their performance.

3. The association of intra-vaginal drainage with dilatation of the vagina, is a great improvement. The inconvenience and evil effects of incontinence of urine are thereby lessened, and the duration of the treatment is shortened, by the more rapid healing of the incisions, and the formation of less cicatricial material in the reparative process.

4. We now possess a means of palliating the suffering due to incontinence of urine, in the small percentage of cases of fistula which are incurable by any

method—even the dangerous one of kolpopleisis. I believe some form of drainage instrument may be adapted to every case, and these patients may be thus restored to the enjoyment of life, and the performance of its duties.

5. The possession of a system of drainage will widen the scope of the operations of kolpocystostomy done for cystitis, by removing the evils of incontinence of urine, now the chief objection to its performance.

6. Finally, I believe the operation, which I have called kolpo-uretero-cystostomy, followed by the exploration and treatment of the diseases of the ureter and pelvis of the kidney, has a brilliant future of usefulness before it. In the treatment of pyelitis, renal calculi and obstruction of the ureters, it will restrict the operations of nephrotomy and nephrectomy.

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**The Consensus Between the Organs of Generation in the Female and the Other Organs.**

BAART DE LA FAILLE says that at puberty the influence of the ovaries upon the other organs is most significant, and during menstruation indications of disease of various forms are especially prone to appear. Among such diseases and diseased conditions may be mentioned migraine, prosopalgia, nausea, vomiting, cardialgia, constipation, disturbances in the circulation of various kinds, and cutaneous eruptions, such as erysipelas, acne, and erythema. At puberty, also, disturbances of nutrition become prominent, such as chlorosis and anæmia, neuroses such as hysteria, disturbances both in the cerebro-spinal and the sympathetic systems, including chorea, epilepsy, hyperæsthesiæ, and anæsthesiæ. There may be psychical disturbances which are apparently dependant upon the process of ovulation,

such as excitability, melancholia, pyromania, and nymphomania. To these might be added aphonia, spasm of the glottis, hyperæmia and anæmia of the brain, epileptic spasms, etc. During gestation the troubles associated with the uterus are conspicuous, and, in addition to obstinate vomiting, one meets with prosopalgia, migraine, insomnia, chorea, ptyalism, cough, pernicious anæmia, and of the cutaneous diseases urticaria and pemphigus. Albuminuria with or without eclampsia may obtain. If eclampsia is present, it is probably due to the reflex action of the uterus upon the medulla and the cerebrum. Cases are also narrated in which there was embolism of the pulmonary artery and puerperal phlebotrombosis which extended from the vena saphena to the vena cava inferior. Collapse occurred in four cases, two of which were fatal. During pregnancy it was observed that some diseases were retarded, for example tuberculosis and epithelioma uteri. In two cases heart disease was fatal during gestation. Repeated pregnancies may be accountable for osteomalacia or the development of osteophytes. Acute atrophy of the liver was observed in one case in the eighth month of pregnancy, which was fatal in four days.

#### The Notion Which is Implied in the Term Castration.

HEGAR (*Contrib. f. Gyn.*) The term ovariectomy in all medical literature means only the removal of ovarian tumors of considerable size. Hegar originated the use of the term castration to signify the removal of the female reproductive glands in the same sense as it is used by surgeons for the removal of the analogous organs in the male, and by veterinarians for the operation upon either sex. The synonyms

oophorectomy and normal ovariectomy have been discarded—the latter because it is seldom applicable. Tait's operation or the removal of the uterine appendages, had been performed by the author and others before it received this name, Tait laying more stress upon the importance of the tubes and their removal than the others did. Similar remarks might be made in regard to the term salpingotomy. The object of castration is twofold : to remove an organ which is a source of irritation on account of pathological changes, and to bring to a conclusion the functions of ovulation and menstruation. The advantages of the anticipated climax were originally pointed out by Hegar, also collateral effects which might be expected from the ligation of certain vessels, stretching of bands, tearing of adhesions, effecting mobility in organs previously immobile, correction of uterine displacement, and the causation of a profound mental impression. According to Martin, Schröder, and C. Ruge, it is essential to the notion of castration that the ovaries be healthy and that recovery be dependent upon one mode of action.—the anticipated climacteric. Martin even wishes to limit the term to those cases in which normal ovaries are removed for the purpose of producing an effect upon the sexual life—that is, upon psychoses which are involved in the cases. The definition of these authors is open to the objection that it involves a complex notion, referring both to the health of the organ which is to be removed and the method by which a cure is to be effected. Prochownik's definition is a better one, castration signifying to him the removal of the ovaries for the purpose of producing the menopause, irrespective of the health or disease of the ovaries. The knowledge concerning the relation be-

tween ovulation and the functions of the uterus, and concerning the influence of a cessation of activity of the ovaries upon the system at large, the nervous system, and the mind, is yet too indefinite to be formulated in any definition of castration. Again, Martin, in the second edition of his book on "The Pathology and Treatment of the Diseases of Women," considers that all castrations for myoma should be called ovariectomies, thus apparently discarding the consideration of the physiological condition of the organ in his definition. Whether the operation is called ovariectomy or castration, it is important to remember in giving a definition that the operation and the indication which calls for it are quite distinct, and this whether the indication is pelvic peritonitis, an affection of the tubes, or an affection of the ovaries. The fine distinctions which Ruge makes between ovaries which are anatomically diseased, though clinically not diseased—that is, the cystic degeneration, for example, which cannot be ascertained by palpation—are considerations which ought not to enter into a definition of castration. The author believes, therefore, that the original idea as enunciated by him is better calculated to express the facts concerned in castration than any of the recent improvements and refinements.—*Ibid.*

### DISEASES OF CHILDREN.

#### The Treatment of Whooping-Cough, with Resorcin and the Pneumatic Cabinet.

DR. ARNTZENIUS reports in a recent number of a Holland journal (*Weekbl. van het Nederl. Tijdschr. voor Geneesk.*) his experience in the treatment of whooping-cough by resorcin. The number of remedies for this disease he admits to be legion; but, encouraged by the results obtained with this method by

Moncarvo, of Rio de Janeiro, he undertook the treatment. He applied a watery one per cent. solution to the fauces and nares, and had excellent results in seventy cases. Arntzenius had been surprised that the use of compressed air and the pneumatic cabinet had not been combined with treatment by drugs. The reason was that in so few cases is a cabinet accessible. In eleven cases which he treated by the combined method, a cure followed after sixteen sittings. It was noticeable that after the first application the general condition was greatly improved, the anorexia was much lessened, sleep was more quiet, the paroxysms of coughing became less frequent and less severe. When a paroxysm occurred the child's condition was soon restored again. All exhibition of drugs internally was discontinued during this treatment. The sequelæ which so often occur and are so injurious were never seen to follow this treatment. The writer considers the influence of the compressed air, by reducing contraction by mechanical means, is more important than any effect on the micro-organisms of the disease.

#### Alterations of the Skin in Scarlatina.

DR. MANDELSTAMM, of Kazan, has examined by the microscope numerous specimens taken from the skin of the cadavers of eight children, who had died in the course of scarlatina, some of collapse, some of intercurrent diphtheria, some of nephritis, etc. He draws the following conclusions:

1. Contrary to the opinion of Thomas and Bohn, the skin in scarlatina undergoes some important modifications and profound morbid lesions.

2. The pathological process is inflammatory in its nature, affecting at once the corneous layer, the mucous layer, the papillary layer and the connective

tissues. It manifests itself by a hyperemia of greater or less intensity, accompanied in these typical cases by œdema of the connective tissue and infiltration of lymphoid elements.

3. The sudoriparous glands are not spared, the limiting membrane is thickened, the epithelium of the tube destroyed, beginning to obstruct by its débris the lumen of the tube, the circumglandular tissue is plentifully infiltrated with leucocytes.

4. In no case has it been possible to discover the *verticillium candelabrum* announced by Tschamer, nor any other species of micro-organism.—*L'Union Méd. du Can.*—*N. Y. Medical Journal.*

#### **Treatment of Diphtheria and Scarlatina by the Internal Use of Mercurial Preparations.**

WHILE the efficiency of mercurial preparations cannot be doubted, their use is based entirely upon empiricism, and it must continue to rest upon clinical observation alone until experimentation has given us more definite and exact information. The author affirms that the treatment of diphtheria by the bichloride and the cyanide of mercury is as effective as anything that has as yet been discovered. A combination which he has also found very useful is the following:  $\mathcal{R}$ . Hydrarg. biniod., 0.015 gramme; potass. iod., 0.200 gramme; tinct. aconiti, 1 gramme; aquæ destil., 60 grammes. Sig.—A coffee spoonful every hour for a child under three years of age.

For children from three to twelve years of age the quantity of biniodide in the above formula may be increased to two centigrammes, and for adults to three centigrammes, the quantity of water being also increased to one hundred and twenty grammes. On the third or fourth day, when the fever

decreases and the local symptoms become less intense, the medicine should be given at intervals of two hours. In severe cases the dose should be given every hour for a week, but only during the hours when the child is awake.—*Jour. de Méd.—Arch. Pédiatric.*

#### **Phosphorus in Rickets.**

SOLTMANN (*Contrib. f. die Ges. Ther.*) has had good results with phosphorus in seventy cases of rickets. He observed an improvement in the general condition, in appearance, in appetite, and also an increase in bodily weight. The functions of the bowels became regular, and the digestive disturbances caused by phosphorus were not noticed in a single instance. The nervous phenomena, the sleeplessness, the restlessness, but more particularly the spasms of the glottis, rapidly disappeared in the majority of the cases in about ten days. On following up the cases, he observed a disappearance of all the usual bone affections.

W. Meyer (*Inaug. Dissert.*) met with similar good results in forty-two cases of rickets in which phosphorus was administered after the usual treatment with lime salts and the like had failed. The drug had especially a good influence upon digestion; hence phosphorus can not be considered as contra-indicated in the various gastric disturbances witnessed in rickets; on the contrary, these frequently disappear under its administration. He would look upon phosphorus as a specific in rickets, which, when properly administered, always leads to positive results.

Petersen (*Contrib. fur Chir.*) has given phosphorus in two hundred cases of rickets, and has never met with a bad result. He considers it a specific in that disease.

Sigel (*Wurtemb. Mediz. Corresp.*) con-



cludes, on the basis of forty cases in private practice, that general treatment is of the greatest importance in the therapeutics of rickets, but that, instead of giving, as heretofore, iron and lime preparations, phosphorus should be administered.

Unruh made extensive observations during 1885 and 1886 in the Dresden Hospital for children, and he is of the same opinion as Kassowitz, that, in the majority of cases, rickets is a congenital disease. He expresses himself as follows in reference to phosphorus: It is a valuable remedy in rickets, and is more efficacious than all other remedies heretofore recommended. By an early administration of the drug he was able to prevent the usual bone deformities of that disease, and this he was able to do in children coming to the Poliklinik, with the most unfavorable hygienic surroundings, as well as in those in private practice.

Toeplitz (*Breslauer Brztl. Zeit.*) treated five hundred and eighteen cases of rickets with phosphorus in combination with cod-liver oil. He did not observe any ill effects, although this combination was given even in summer. In all the cases he observed in a short time an improvement in the general condition of the children; the nervous symptoms and pains in the limbs disappeared, and motion became more active. Of two hundred and eight cases of craniotabes, one hundred and seventy-six were cured in eight weeks; of fifty-eight cases of laryngismus stridulus, the attacks ceased in from eight to fourteen days, after having continued for months in spite of other forms of treatment. The influence upon dentition was beyond a doubt. The bodily weight increased, the lungs expanded, the circumference of the thorax increased, and the catarrhal conditions disappeared. It is men-

tioned as a particular advantage of this method of treatment that the good effects are independent of the surroundings, which, in the majority of cases, can not be altered.

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### OBSTETRICS.

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#### Kneeling Posture in Protracted Labor.

DR. EDWIN M. HALE, Chicago, in *Journal of Obstetrics*:

Mrs. J., a short, fat woman; in her first labor, the progress was very slow and painful. The pains had lasted twenty-four hours before the os had dilated sufficient for the head to descend. But it did not descend, nor did it progress beyond that stage, notwithstanding the use of the hot sitz bath, the douche, caulophyllin and cimicifuga. I wasted six hours, the soft parts become hot and swollen, and the woman showed signs of severe exhaustion. The long forceps were applied but my strength was not sufficient to move the head. I called on Dr. George A. Hall, who used another kind of forceps and succeeded, after nearly an hour of forcible traction, with the aid of an assistant. The perineum was badly ruptured; was sewed up immediately, and the patient made a good recovery.

Three years after, the same history was repeated.

Four years later the woman was again taken in labor. The os rapidly dilated, but the head became impacted at the same spot. It occurred to me to suggest to the patient to kneel down by the bed. After assuming this posture the pains immediately became more violent and expulsive. She did not have more than six or seven before; placing my hand on the perineum I found it was rapidly distending, another pain expelled the child. There was no rupture of the perineum; recovery rapid. If she had

assumed this posture with her first labor, would the child have been born naturally?

I think not, owing to her peculiar physical conformation.

With the second child, the result of the kneeling posture might have been successful. In a fourth labor she assumed the kneeling position, at about the same stage of labor, and the child was born before any physician could be procured. I have often seen protracted labors rapidly terminated by the same procedure.

One of the most plausible explanations of labor in the second stage, is given by Lusk. "It is either due to exhausted nerve power, or excessive uterine retraction; in the latter case the withdrawal upward of the uterine muscle and the consequent lessening of the intra-uterine pressure." He quotes Hofmeier, who reports a number of instances when the head rested on the pelvic floor, that the ring of Bande, which was made and by palpation through the abdominal parietes, was situated at from five to seven inches above the symphysis pubis so that the contractile portion of the uterus covered not more than one-third of the fœtus. Under such circumstances, while the patient suffers from intense pain, the contractions of the partially emptied uterus do not possess the force to overcome the resistance of the rigid perineum. I have observed several instances of this kind, when the kneeling posture caused the retraction to give way.

But in the case of Mrs. J. and some others, this could not have been the condition present, unless the contraction with retraction of the uterus occurred at an earlier stage, for the head had not descended sufficiently to press on the perineum. While the presentation appeared normal, the head did not de-

scend; there was no flexion. Perhaps this non-flexion was the cause of the arrest of labor. But why does the head not flex? I believe it is because the expulsive force is not applied in the proper direction. Nor can it be applied while the woman is in any other position than kneeling with the body bent forward. One peculiar symptom observed in these cases is, that the vagina, which, previous to arrest of labor, seemed open enough—soon after the descent of the head was arrested, appeared to "fill up;" and the head actually seemed higher than before. This would imply that the so-called "tonic retraction" may occur before the head reaches the floor of the pelvis.

Patients delivered in this position usually kneel on a pillow, with the knees apart, and the arms upon a chair, bed or lap of an attendant. The physician takes his seat on a low ottoman on her left side, and placing his hand on the perineum, watches for the descent of the head. There is no fear of the child being precipitated from a height with injury to itself or its mother. The space between the uterus and the pillow upon which the patient kneels is so small that the head of the fœtus is arrested before the whole of the body is expelled, and the average length of the funis is sufficient to prevent it dragging down the placenta or uterus, even if the accoucheur did not attend to the taking of the child. The posture is strictly scientific, for when the woman is thus placed the outlet of the pelvis rests perpendicularly and the greatest gravitory influence of the fœtal head is secured. More than this, the expulsive efforts of the woman can be exerted with far greater force and ease than in any other position.

As the trunk of the woman is bent forward, the propelling force of the ab-

dominal muscles are exerted at a proper angle, to best insure flexion of the fœtus through the curve of the genital canal.

If accoucheurs will carefully consider the many mechanical reasons for the use of this position during the second stage of labor, they can not fail to be convinced of its utility. It certainly ought to be tried in all cases of lingering labor in the second stage before we resort to the forceps.

#### **The Use of the Curette and Intra-Uterine Douche After Labor at Term.**

DR. J. SUYDAM KNOX, in an article published in *Journal American Medical Association*, summarizes as follows :

1. Where there is positive evidence that there is putridity or septic infection of the uterine cavity, the douche is imperatively demanded.

2. Where the douche does not succeed in abolishing the fetor or septic symptoms, the curette should be cautiously and thoroughly used.

3. Where the womb has been thoroughly irrigated and made aseptic, the douche should be discontinued.

4. Where there is septic fever, with doubt as to its uterine origin, vaginal antiseptic douches should be first attempted. Only on their failure should intra-uterine douches be resorted to.

5. In purely localized inflammatory affections, with no evidence of sepsis, the intra-uterine douche is absolutely contraindicated.

6. The intra-uterine douche should never be used simply to lower temperature.

And as a corollary to the above should be added :

7. It should be considered a criminal offense to administer an intra-uterine douche without proper antiseptic precautions, or to intrust its administration to an unskilled assistant.

Lest this last be considered too harsh and arbitrary, I would explain that it is a slow outgrowth from observation of the practice.

There is a growing tendency, in this germ-crazed age, to charge every deviation from a normal lying-in to bacterial agency ; which I believe to be wrong. There is also a growing tendency, on account of the brilliant results obtained in maternity hospitals, to apply the methods of such hospitals to private practice. I do not object to the methods, but I do strenuously object to this application. The fact is, the influences affecting the two classes of parturients are radically different. The best results obtained in maternities to-day, under strict antiseptic precautions, do not exceed those of ordinary private practice without special antisepsis. Besides, it is not possible to carry into private practice the routine of the hospital. Whenever the influences are similar, the same methods should be rigidly enforced.

Again, in the practice of these methods I earnestly and solemnly protest against the divorcement of the technique from the operation. The intra-uterine douche or the use of the curette is valuable, not so much because the injection is antiseptic, or the *débris* is removed, but because it is done antiseptically. Unless so done it is worse than useless.

This growing easy faith in the harmlessness of uterine irrigations administered carelessly, and often entrusted to unskilled and ignorant nurses, is to me appalling.

I would close this brief paper with two quotations which fully express my views. The first is from Egbert H. Grandin, M. D., of New York : "There is one point in regard to the intra-uterine douche on which sufficient stress cannot be laid, and this is that it is use-

less, and is not indicated, except where the source of infection lies in the cavity of the uterus. Exudations around the uterus, whether of septic or traumatic origin, are not benefited, but may be, on the contrary, intensified by manipulation of the uterus. Fœtor, rise of temperature, chill, may depend on a lesion of the vagina or cervix, as well as on infection from the uterus. We must first differentiate the source of the infection, as nearly as may be, and where in doubt, in the absence of evidence of cellulitis or of peritonitis, it is a good and a safe plan to give, with care, one thorough intra-uterine douche."

The second is from the pen of Lusk : "It cannot be too strongly insisted upon that, in a rightly conducted confinement, infection does not begin in the uterine cavity, and that the need of such injections is a confession of faulty procedure."

#### Self-Infection.

AHLFELD (*Contrib. f. Gyn.*) says that the axiom that there can be no such thing as self-infection after a normal parturition is effectually exploded. Winckel has shown that it has occurred in women who have given birth to their children *in the street*, in which there could be no question of infection from the hands or instruments of physicians or midwives, and Ahlfeld has demonstrated the same by experimental investigations. The author understands by self-infection, with Semmelweiss, a condition in which the poisonous matter exists upon or in the genital organs at the time of parturition, or is developed during parturition of the puerperium. The infection may or may not be communicated to the patient during the manipulations of the physician or midwife. A sharp distinction between infection from without and self-infection

does not seem to be possible ; it is therefore difficult to say, in most cases, that the physician or the midwife is responsible should puerperal fever make its appearance. It is only recently that stress has been laid upon the influence exercised by micro-organisms upon the vulva and the external genitals, and this had lead to undoubted improvement in the condition of puerperal women in general. It is now admitted that if pathogenetic spores are found in the vagina of a woman who is otherwise in good condition, disease may result, though there is still uncertainty as to whether they are developed in the vagina previous to parturition by their entrance into the tissues, or through the process of their proliferation. A fatal result from blood-poisoning or septic peritonitis may occur even though the patient may not have been touched by a physician or other attendant. Cases are narrated in which the evidence of septic infection from retained and putrefying products of conception is clear and convincing, poisoning from the absorption of ptomaines being admitted. The author does not agree with Kaltendach in his belief that puerperal disease from such a cause is of rare occurrence.—*N. Y. Medical Journal*.

#### Mammary Elimination.

THE question of elimination of drugs from the mammary glands of the female is one of practical interest. Our own experience leads us to believe that only in very rare instances do medicinal substances find their way into the mother's milk in sufficient quantities to affect the offspring. This conclusion is measurably confirmed in a paper recently published in the *American Practitioner*. Dr. JOHN G. CECIL there concludes that it is practically impossible to medicate the child through the nurse's milk ; on



the other hand, he advances evidence to show that certain narcotics, and even other substances, may sometimes find their way into the lacteal fluid in sufficient quantities to produce acute poisoning in the child. Every one knows that the oil of garlic will in the spring appear in cow's milk in sufficient quantity to be disagreeably recognized. Among the cases cited by Dr. Cecil several seem to us worthy of especial note.

*Opium.*—In the *American Journal of Obstetrics*, is reported by Dr. O. W. Doe, a case of galactorrhœa, in which, the patient being restless and nervous, 20 drops of tr. aceti opii, with 30 grains of potas. brom., were given at 10 A.M., but no sleep followed. The baby, on the contrary, could not be roused during the whole day sufficiently to nurse; the pupils were markedly contracted, and the narcotism was so pronounced as to give rise to much anxiety. According to Dr. Cecil, an infant two days old, in Manchester, England, died soon after taking the mother's breast for the first time. The symptoms were said to have been those of opium poisoning. The mother was a habitual opium eater, using weekly about an ounce of the drug. A similar case was reported in *Annales de Gynécologie*. Those of our readers who have noted in our review of Dr. Erlenmeyer's book the statement that infants born of opium eaters are very liable to sudden collapse after birth for want of opium, will agree with us in thinking it possible that in the two cases just cited the children died from lack of opium rather than from opium poisoning. Dr. Fehling found that hypodermic injections of morphine given to the mother do not affect the child. The explanation of opium collapse cannot, however, apply to a case reported by Dr. Cecil himself, in which the child was six weeks old.

*Atropine.*—Dr. Schling reports in the *Journal de Médecine*, some experiments with the alkaloid of belladonna. Hypodermic injections of  $\frac{1}{15}$  to  $\frac{1}{20}$  of a grain of atropine produced a decided impression on the mother. Dilatation of the child's pupils followed, which disappeared in twenty-four hours. Dr. Ouchterlony gave to Dr. Cecil the record of a case in which, after the administration of hyoscyamus to the mother, the child's pupils became widely dilated and its face flushed, and other symptoms of poisoning appeared, which subsided upon the withdrawal of the remedy.

Salicylate of sodium has been found by Fehling and Schling in the child's urine about one hour after its administration to its mother. Mercury was at one time frequently administered to the mother for the purpose of affecting the child, but the practice has gone into desuetude. Conjoined clinical and experimental evidence seems to show that although the mercury does pass from the mammary glands occasionally, its elimination is too feeble and too uncertain to be relied upon. There is reason for believing that the iodides are more frequently eliminated with the milk, and Dr. Cecil records a case of marked iodism in the babe following the exhibition of the drug to the mother,

Arsenic and antimony appear to pass with some readiness through the mammary glands. (See *Journal of the American Medical Association*, September 12th, 1885.) M. Gabriel Bouchet, to determine whether arsenic is eliminated by the milk, gave Fowler's solution in large doses to a number of wet nurses, and found a notable quantity of the metal in the milk. Lewald states that he has found arsenic in the milk seventeen hours after its ingestion, and that even forty hours later it could be detected.

## DISEASES OF WOMEN.

## Laceration of the Cervix Uteri.

DR. GOODELL, in a clinical lecture, published in *Medical Bulletin*, said :

There are no special or pathognomonic signs of laceration. The symptoms attending the lesion are those arising from the accompanying complications. Upon examination, the condition of the torn surfaces will depend somewhat upon the age of the laceration. They may be completely cicatrized over, presenting a healthy appearance, or present a mass of granulations situated upon a cartilaginous base resembling malignant degeneration. These granulations bleed very readily, so that examinations, coitus, or severe exercise, may be followed by hemorrhage.

The surfaces may be in contact or be widely separated, the angles filled with dense, hard, almost cartilaginous masses of cicatricial tissue. In such cases, the lower part of the cervix presents an expanded mushroom-like shape. The flattened lower surface rests against the posterior wall of the vagina. This separation of the lips of the cervix frequently results from eversion of the catarrhal cervical mucous membrane. This membrane becomes thickened, its glands undergoing cystic change, roll out and widen the tract between the torn surfaces. The whole surface may be covered with this degenerated mucous membrane. A similar condition is seen rarely in women who have not borne children. I but recently saw a woman in consultation, who, though she had never been pregnant, presented a cervix in this state of cystic degeneration, the whole external portion being covered with cysts. That such a condition is due to eversion of the cervical mucous membrane is evident from the fact that there are no glands in the vaginal mucous membrane.

In cases of subinvolution, or chronic metritis, the posterior lip may undergo complete involution, or even atrophy, while the anterior continues large or even hypertrophies and elongates. If the uterus is anteverted it may give the appearance of ante flexion, presenting as it does a distinct angle between the lip and the cervix. Where the laceration has extended through the vaginal portion of the cervix into the cellular tissue, we have more or less evidence of resulting cellulitis. If one-sided the uterus will be verted to the affected side, partly as a result of shortening of the infiltrated broad ligament, partly from the disparity of support, the organ appearing, from the separation of the torn surfaces, to rest upon a tripod. The laceration, whether uni- or bilateral, by affecting the normal leverage of the cervix, increases the possibility of ante- or retro-displacements. Besides the frequency of displacements, we usually find it complicated by sub-involution or chronic metritis. The exposed endometrium is the frequent seat of catarrh or inflammation. Where the lesion has existed for a long period, and nature has made repeated efforts at its repair, the proliferated epithelial cells are liable to be the origin of malignant change. The frequency of epithelioma in the cervix, and its more frequent occurrence in those who have borne children, leads us to feel justified in ascribing to this lesion an important rôle in its etiology. Indeed, it is sometimes difficult to determine between the early stages of epithelioma and laceration of the cervix, where the torn surfaces are covered with exuberant granulations which bleed readily upon the slightest touch.

The tears through the anterior and posterior lips do not separate so widely as the lateral, hence are more likely to unite. Partial union of the former, when

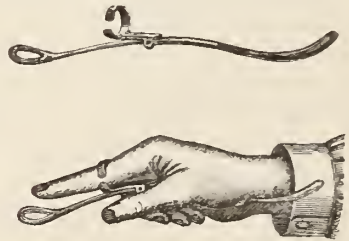
the vesical wall is also torn, may result in vesico-uterine or vesico-utero vaginal fistulæ.

I would not wish to be included among those who are ready to operate upon every fissure of the cervix, however slight. Indeed, when the tear is slight, the surfaces are cicatrized, or show a disposition to do so under treatment, when eversion and cystic degeneration are absent an operation is unjustifiable. Murphy, considering the infrequency of pregnancy subsequent to operations upon the cervix, concluded that the operation was a cause of sterility. But while I am convinced that the repair of the lesion in cases proper for operation will facilitate conception, it cannot be denied that the unnecessary performance of this operation has engendered such a fear of its recurrence as to lead women to adopt means for the prevention of conception. In the patient before you, the lesion, as you see, is situated upon the right side, and has extended through the vaginal cervix into the corresponding lateral fornix. We proceed to freshen the surfaces after having secured the cervix by a loop of thread passed through the anterior and posterior lips. As there has been some cellular inflammation here, we are careful not to make much traction. The surfaces are denuded with the knife for the reason that we can govern its action more accurately. To be ambidextrous is a great advantage in denuding the posterior lips. The surfaces are brought together with interrupted sutures, which may consist of silk, cat, or silk gut or silver wire. I now use the silk gut and prefer it to any other. The sutures are secured by shot. All the sutures, excepting the one at the upper angle, will be cut close to the shot; the latter will be kept long and another shot clamped upon the ends. It affords considerable advantage in re-

moving the sutures, for by dragging upon it the whole line of sutures is exposed. The patient will be kept in bed two weeks, the sutures removed on the tenth day, though their longer retention would work no injury. The patient will, if possible, void her urine, as the use of the catheter, unless great care is practiced, may engender cystitis. The bowels having been thoroughly evacuated will now be allowed to rest until the third day, when a saline laxative will be given and repeated every second day. The diet will be moderate, giving but little more than broths for a few days. No injection will be used for the first three days, as its earlier use interferes with the proper gluing of the surfaces together with plasma.

#### Wilcox's Digital Forceps.

THE accompanying cut illustrates very clearly the appearance and manner of using an instrument which has been sent us by the inventor for notice. The design consists in attaching a species of blunt curette to the index, in such way



that the instrument can be used as a curette, or in combination with the finger as a fenestrated forceps. The advantage, in many cases, of such a combined digital and instrumental manipulation, must be obvious. The instrument was originally intended for use in cases of adherent placenta; but there are several other conditions of the uterus in which it might afford valuable assistance.—*N. Y. Medical Journal.*

### Braided Silk Sutures in Operations for Lacerated Cervix and Perineum.

DR. J. N. MARTIN, of the University of Michigan, says : I have used silk sutures in thirteen cases with exceedingly good results, and Professor Dunster has used it exclusively for two and a half years with most excellent results. I claim for silk sutures:

1. They are as easily introduced as silver wire sutures.
2. Easier to tie silk and adjust the parts than to twist silver wire sutures.
3. Much less irritation to the patient (especially in the perineum) while the sutures are *in situ*, which is important.
4. Removal of silk sutures is very much less painful.
5. Silk sutures give as good results as silver wire sutures.

The hard braided silk should be used for the sutures (about No. 10 for the perineum, and a size or two smaller for the cervix), and should be rendered thoroughly antiseptic before and after waxing in bichloride of mercury solution (1 to 800 or 1 to 1,000) or carbolic acid solution. In tying braided silk one important precaution is necessary : it is best to make the knot with a triple tie, the last tie to be drawn down tightly or it may become untied.—*Medical News*.

### A New Theory of Uterine Diseases and Displacements and Their Treatment by Electricity.

DR. LAPHORN SMITH (*Northwestern Lancet*) : The author read a rather remarkable communication before the Gynæcological Section of the International Medical Congress, at Washington, in which he showed that nearly all these diseases depended on muscular relaxation ; that the organ itself was kept from flexing either forward, backwards, or laterally by its inherent muscular tone ; that it was prevented from pro-

lapsing or bending by the tone of the muscles which support it in the pelvis, which muscles have heretofore been erroneously termed ligaments, a term which was erroneous and misleading, because it led to an improper treatment by pessaries ; that the weight of the organ itself depended on the muscular tone of the blood vessels, which permeated it ; that when, from any cause any of those muscles either of the vessels, of the organ itself or of its supports became relaxed, the organ became too heavy for its supports and at the same time the supports became too weak for the organ. It could thus be understood that a slight amount of flexing would take place without there being any pathological change ; but if the displacement became more pronounced this again reacted on the circulation, and an obstacle being offered to the free movement of the blood, the current would be stopped in the same way as water would be arrested by a kink in a rubber tube. He pointed out that the real cure of diseases and displacements of this organ did not lie in cutting, scraping and otherwise mutilating it, but in accelerating the retarded circulation, contracting the dilated and congested vessels, and in toning up by every means in our power the relaxed muscles of the organ and the supports.

The most enlightened gynæcologists have been of late years gradually coming to recognize these facts, to abandon more and more the treatment by pessaries, and to direct their efforts to reducing the organ to its normal size and weight, by means of those remedies which, applied locally, reduce the engorgement, such as glycerine and tannin, or those which contract the blood vessels and muscles when administered internally, such as ergot, strychnine and *hydrastris canadensis*.



By the wonderful discoveries of Apostoli in the application of the galvanic and faradic currents to gynecology, a new order of things has been inaugurated, and now all diseases of the uterus can be treated scientifically and with the certainty of cure. Thus flexions, versions and prolapsus can be positively and quickly cured with from twenty to thirty applications of the faradic current through the short thick wire, introduced into the vagina by means of Apostoli's bi-polar excitor, or in obdurate cases with the intra-uterine excitor, which is especially applicable to cases of sub-involution. The worst cases of sub-involution again can be speedily reduced by means of the positive continuous current applied by means of a platinum or gold sound properly protected with a celluloid sheath. This latter acts as a powerful alterative, under whose influence the diseased mucous membrane is replaced by a healthy one, even bleeding polypi coming painlessly away. But it is especially in fibroids that he has achieved the greatest triumph of this age, for a strong continuous current, either positive when applied to the interior of the uterus, or negative when introduced by puncture into the substance of the growth through the vaginal roof, causes this dangerous deposit to be reabsorbed and to more or less completely disappear.

Another of the most gratifying uses of the faradic current the reader of the paper showed, was the alleviation and removal of that most distressing symptom of ovarian pain. This is attained with the bi-polar application of the current from the long fine wire, which gives great tension to the ovarian region through the vaginal. It will thus, he said, prove the death knell to that large class of gynecologists who

glory in removing healthy ovaries. In cases of vaginismus leading to dyspareunia, no hitherto known remedy could offer any cure so speedy and certain. In this, as in ovarian pain, the worse the suffering the more certain were we of curing it. In fact, he thought there were no diseases of the uterus or ovaries, with the exception of ovarian tumor and malignant disease, which could not be cured by some of the many varied forms of the electric current. In support of his assertions he related some remarkable cases, where the results of its employment had far exceeded his enthusiastic expectations.

#### Climacteric Hemorrhages.

DR. FORDYCE BARKER, in the *American Journal of Obstetrics*, says the most valuable remedy for hemorrhages occurring at or near the climacteric, is a combination of equal parts of fluid extract of hamamelis and fluid extract of hydrastis.—*Coll. and Clin. Record*.

#### Salol in Menorrhagia.

SALOL is recommended for Menorrhagia, in the *Revue de Thérapeutique*, in the following:—℞. Salol, p. x; acaciæ, p. v; aq. destillat., p. cc. M. Fiat emul.

#### On the Treatment of Sterility in Women.

DR. THOMAS MORE MADDEN, in a paper read before the Gynecological Section of the Ninth International Medical Congress, said substantially:

1. *Etiology of Infecundity*.—As in every other morbid condition, so in the treatment of sterility, our first aim must be to ascertain the cause of the trouble for which we are consulted, and our second object to remove this, if it is possible to do so. Of the various causes of barrenness, some, as, for instance, the absence or arrested development of the organs essential for conception, viz.:

the uterus, fallopian tubes, or ovaria, being beyond remedial reach, need not here occupy our consideration. In the great majority of instances, however, sterility occurring in women within the limits of ovarian functional vitality, admits of effectual treatment when that treatment is rationally directed to the special exigencies of each case.

*Stenosis of the Cervical Canal.*—This is not only the most frequent of the causes of sterility, but is also, according to my experience, the most amenable to appropriate treatment of all the physical factors in the causation of infecundity. . . . Believing as I do that although dilatation or incision of the cervix may be successfully employed in many cases, either of these methods *per se* very often fails in permanently so far overcoming the natural contractility of cervical structures as to prevent a recurrence of the stenosis, I now desire to call attention to a method of procedure by the use of certain instruments, by which the walls of the cervical passage are so forcibly and widely separated and torn, rather than cut apart, as to obviate risk of their speedy re-union and recontraction.

*Vaginal Aphoria.*—In relation to the causes of sterility the condition of the vagina is a consideration of importance, it being obviously necessary for impregnation that this canal should be capable of receiving, retaining, and transmitting the seminal fluid. These requirements may be defeated by various abnormalities, congenital or acquired.

*Infecundity from Vaginismus.*—Conceptive incapacity, or female impotency, is in many instances traceable to vaginismus or excessive sensibility of the vaginal orifice and adjacent parts, attended with such spasmodic contraction of the sphincter vaginae as to form an impediment to marital intercourse. This

occurs chiefly in patients of a hysterical temperament, and is generally occasioned by neuromata, confined to the parts supplied by the superficial perineal branch of the pudic nerve. From clinical experience I can vouch for the possibility, in many cases, of relieving the most intense dyspareunia thus caused, without any operative interference beyond the forcible dilatation of the vaginal canal, and stretching the pudic nerve implicated by the disease. The method of effecting this I have elsewhere described in a memoir, in which, whilst giving primary importance to local treatment, I at the same time laid stress on the importance of conjoint employment of topical measures with that constitutional sedative treatment which is always indicated in these cases, as in all other local manifestations of constitutional, nervous, or hysterical disorder. In some instances, however, these means fail, and we must then fall back on Sims' or Emmet's operations for the cure of vaginismus. It, however, sometimes happens that even in cases of vaginismus so intense as to render complete marital intercourse impossible, the disease is not necessarily a barrier to impregnation. Thus, in one instance under my observation, so extreme was the local hyperæsthesia as not only to preclude the possibility of complete cohabitation, but also to prevent the patient submitting to any local treatment for relief of the morbid condition. Nevertheless conception occurred, and I subsequently was called in to deliver her at full term, and in doing so was obliged to incise the still unruptured hymen by which delivery was obstructed.

*Sterility from Uterine Flexions.*—The various displacements of the uterus by which sterility can be occasioned have been so fully discussed by recent writers as to render any lengthened reference

to this point superfluous in this place. For my own part, I am inclined to think that a very extreme degree of importance is attached by Dr. Graily Hewett and his followers to the influence of anteversion and flexions in the causation of infecundity. In my own experience, at least, I have not often met with cases of sterility assignable to anterior derivations from the normal position of the uterus, and I have seen early pregnancy co-existent with the most marked antelexions. On the other hand, I have often traced sterility to retroversion, and again, and more frequently, to retroflexion, by the latter of which not only is the permeability of the canal mechanically constricted, at the point of flexion, but, moreover, as in cases of retroversion, and also of prolapsus uteri, the vaginal retentive capacity is necessarily interfered with. In each and all of these three latter conditions I have generally found the reposition and maintenance *in situ* of the uterus by a properly adjusted Hodge pessary, *per se*, to be sufficient to cure the sterility thus occasioned. Nevertheless, the operation of opening by incision and dilatation the cervical canal is still useful, however, in certain cases of flexion of the uterus, with elongation of the cervix, where, from long continued pressure at the angle of flexure, such an absorption of tissues has taken place as to occasion a permanent morbid condition incompatible with impregnation. In such cases the result of incising the cervix, which should always be divided backwards, is, as Dr. Emmet observes, to bring the neck of the uterus to a more natural length, and it then becomes straighter, shorter, and thicker.

*Endometritis and Sterility.*—Chronic endometritis is incompatible with fecundity, and as long as that disease exists to any serious extent the patient must

remain barren. This fact, to which I called attention many years ago, is one of great practical importance, and is too generally ignored in practice. I have known many instances in which patients were subjected to active surgical treatment to overcome some supposed mechanical obstacle to impregnation, and who, nevertheless, remained childless, no attention having been paid to the true and most frequent cause of sterility, namely, the existence of chronic cervical inflammation, on the subsequent cure of which pregnancy has followed. In such cases not only is impregnation obstructed by the viscid glairy secretion by which the os and inferior segment of the cervical canal is sealed in all cases of endocervicitis, but, also, as Mr. Whitebread long since pointed out, the inflammatory action going on within the uterus, and which is liable to be aggravated under the states of venereal excitement, may prevent the formation of the membrana decidua; and the ovum, even though impregnated, is necessarily thrown off without any manifestation of its existence in the fertilized state. Secondly, the diseased condition of the lining membrane of the uterus may be extended to the fallopian canals, obliterating for a time their internal orifices, so as to oppose a complete barrier to the admission of the spermatic fluid within them, and thus to render the fertilizing effort abortive. Thirdly, the nature of the secretion furnished by the internal surface of the uterus or of the vagina, under certain states of the disease, may be inimical to the active existence of the spermatozoa, occasioning their destruction before they arrive at the extricated ovule.

I may venture here to reiterate two of the conclusions on this subject which I published fourteen years ago in the first volume of the "Dublin Obstetrical

Transactions," and which have been confirmed by more recent experience, viz.: 1st. That a congestive hypertrophy of the uterus, and more especially of the cervix uteri, is a very common cause of sterility; 2d. That these conditions were, in the majority of cases, occasioned by constitutional causes, one of the most frequent of which is the scrofulous diathesis; 3d. That these diseases require constitutional as well as local treatment; and I would again urge the benefits derivable in these cases from the use of the mineral and thermal waters of which I have elsewhere spoken.

*Ovarian and Tubal Sterility.*—Ovarian inflammation, manifested by soreness, tumefaction, and occasionally burning pain in the ovarian region, is one of the most frequent consequences and accompaniments of endometritis. In these cases the inflammation extends from the uterus, along the fallopian tubes, to the ovaries, and this to a great extent accounts for the fact I have just mentioned, that patients, whilst suffering from endometritis or endocervicitis, are invariably sterile. Moreover, in cases of endometritis the consequent salpingitis is generally attended by a viscid exudation, by which the tubes, and especially their uterine orifices, are mechanically sealed against the possibility of impregnation. Independently, however, of its frequent sequence on endometritis, tubal obstruction, productive of dysmenorrhœa and sterility, may also arise from those possibly graver, but, according to my experience, comparatively exceptional diseases, the frequency and pathological importance of which appear to me to be now strangely overestimated, and in the treatment of which operative procedures, involving loss of all future conceptive ability, *i. e.*, the complete re-

moval of the uterine adnexa, are so readily resorted to. In not a few cases I have seen all the supposed symptoms of pyosalpinx subside completely without any surgical interposition whatever.

It would seem to me quite as rational to amputate the breast for an ordinary mammary abscess as to remove the fallopian tubes merely because they may be the seat of serous or purulent exudations. In many cases of the latter there is, as I can vouch from clinical experience, no impossibility of reaching and removing the collection, whether a hydro or a pyo-salpinx by aspiration, or in some instances, by catheterization of the diseased fallopian tube.

Many years ago, having occasion to use the sound in a patient suffering from dysmenorrhœa and a long time sterile, I was surprised, there being no enlargement of the uterus, to find the sound pass in up to the handle, and that it had obviously entered the right fallopian tube. A year subsequently that lady gave birth to her first child, after eight years of married life. Since then I have repeatedly succeeded in accomplishing what, in the first instance, was but a happy accident, and more than once with a similar result. Hence I invariably endeavor to impress, by clinical demonstration, on those who attend my hospital practice, the too generally ignored fact that the catheterization of the fallopian tubes, when employed by a practised hand, and with due caution, is a feasible, and, in some instances, may prove an effectual method of treating certain cases of dysmenorrhœa and sterility.

Sterility may also arise from causes irrespective of any physical lesion. And although impregnation obviously in no wise depends on any sexual desire, still, unquestionably, it may be prevented by strong mental emotion



and personal dislike, or even by sexual incongruity, which, in some instances, however, is not dependent on any aversion. Thus, in two cases, I have been consulted, after some years of childless married life, by ladies happily married, desirous of offspring, and not suffering from any physical disability, who informed me that though attached to their husbands, not only was there absolutely sexual indifference, but even positive repugnance to coition, which, in one instance, produced absolute nausea. In the latter case, I may add, that the last mentioned symptom was allayed by the use of cocain suppositories before intercourse, and that ultimately pregnancy resulted.

Still more commonly is sterility dependent on sexual abuse or abnormal irritation, and hence the general sterility of prostitutes. It is hardly necessary to observe that in such cases a long period of abstention from all sexual stimulation affords the only hope of remedying the *impotentia generandi*.

In cases of infecundity, independent of any local disease, malformation, or displacement, or of any obvious derangement of the general health, or other tangible cause, and in which the mineral waters already referred to have either been tried without benefit or are contra-indicated, or not available, a course of sea-bathing is a prescription the efficacy of which in such cases I learned many years ago from a veteran obstetrician, the late Dr. McKeever. Why or how sea-bathing should have any special effect in this way, I know not, but I can vouch for the fact that in many instances of sterility of long duration, the cause of which I had failed to discover or to remedy otherwise, impregnation has dated from a course of sea-bathing during a visit to Brighton, Bray, or some other seaside sanatorium.

### Report on Sixty Total Extirpations of the Uterus.

PROFESSOR DR. HEINRICH FRITSCH, Breslau (*Archiv für Gynakologie*):

Such a splendid contribution of sixty cases to the question of operation on the carcinomatous uterus is, especially when it comes from Fritsch, unquestionably of great value as an aid in clearing up different vital questions at issue; and, indeed, the reader will find much that is extraordinary in this concise essay which avoids any far-fetched conclusion. But to anticipate this at once, starting from Volkman's statistics concerning the recurrence of carcinoma of the breast, Fritsch<sup>a</sup> had cured two cases surely, and seven in all probability. From this the exceedingly important fact becomes evident, that after total extirpation of the carcinomatous uterus, recurrence happens less often than after any other carcinoma.

The legitimacy of the operation no longer admits of the slightest question, and it depends on the practising physician to increase the chances of success by an early recommendation of it. For the direct mortality, which in these cases of Fritsch stands at 10.1 per cent., will surely be diminished to three or four per cent.

Fritsch does not make a sharp differentiation between a carcinoma of the portio and one of the cervix. In a carcinoma of the portio the disease always commences where the two kinds of epithelium join each other. By a carcinoma of the portio, one which increases downwards is implied, and by a carcinoma of the cervix that kind which penetrates crater-like into the cervix and parametrium. The former variety is most adapted for total extirpation. Like the majority of other operators, Fritsch objects to the high amputation of the portio, and favors total

extirpation, whether the carcinoma appears to be one of the portio or of the cervix, and he emphasizes especially the contraction of the portio, often following the former method, as well as the difficulty of total extirpation after removal of the portio in case of subsequent recurrence.

The operation should be done only when the uterus can be well drawn down, and then one should not be frightened by tumors, even if they can be felt near by the uterus; for these tumors are not carcinomatous nodules. An incomplete operation does not mitigate the pain at all, and only hastens death.

Fritsch does not undertake any primary operation. In preparation the vagina and rectum are cleansed, and, in case the carcinoma has disintegrated, the loose masses are removed by a sharp curette. Fritsch's method of operating is well known. He begins by separating the parametrium on the side, while he advances by making shallow cuts, and stops hæmorrhage by sutures. In this way blood is saved, and the uterus soon becomes movable. Also, one will quickly determine whether there are any carcinomatous nodules in the parametrium, and can interrupt the operation without injury to the patient. And, finally, the most difficult part of the operation will be accomplished before opening the peritoneum. A great advantage consists in the fact that Fritsch, after cutting through the anterior attachment of the uterus, does not turn it out; but that he produces a marked antifixion by means of a hook inserted in one angle of the uterus, so that he draws this angle down and then ligates the stump of the broad ligament and cuts it off. He then accomplishes the same thing on the other side. If it was not possible to do so before, Fritsch removes the ovaries after

removal of the uterus, in case they can be drawn down without much force. After sewing the stumps, iodoform is used in the vagina, and an iodoform tampon left in.

If the uterus is very much enlarged, and if there is complication with myomata, and also, if it be impossible to pull down the uterus, which has been already detached on the sides, Fritsch accomplishes removal by laparotomy. He has done this once with success, and the woman continues well after one year and ten months. If the uterus be the size of a child's head, the bladder is easily torn by the force exerted in pulling the uterus downwards. On this account it is recommended in these cases to test the bladder by filling it with water after the operation has been completed, to determine this question. Fritsch has twice observed a spontaneous healing of a vesico-vaginal fistula made in this way. Once a ureter, which had been dislocated by a deformity, was ligated; and once after excessive loss of blood, salt water was transfused with good result. Fritsch has observed two cases of recurrence, once in the cicatrix itself, and once in the parametrium. In the last case the cicatrix formed a swollen cone. The prognosis is favorable in those cases where the cicatrix is smooth and transverse. Fritsch has lost seven cases; for he operated on many cases of carcinoma, especially in the beginning, on which he would not now operate.—*Centralblatt für Gynäkologie*.

#### DISEASES OF CHILDREN.

##### The Origin of Erosions on the Crowns of Teeth.

BUSCH (*Arch. f. Kinderh.*). As a result of his experience, the author believes that defects in the enamel of the teeth,

which are commonly known as erosions, are due to certain laws, not only with reference to their localization upon the crown, but also with reference to their occurrence upon particular teeth in the set. These furrows and depressions affect only the superficial portion of the crown, while the part which is near the root may always retain its normal consistency. These erosions never affect a single tooth or several teeth without any regard to position or other conditions, but always affect, in any given case, those which are developed in the jaw at the same period, and hence those groups are most frequently and most decidedly affected whose crowns develop earliest. The first molar stands foremost in the list, its crown being partly developed as early as the time of birth. The incisors and canines come next, their crowns developing during the first few months of life. The bicuspsids are seldom eroded, their crowns developing, for the first, at the end of the second year of life, for the second, a year later. The last two molars, the crown of the first of which begins to develop at the end of the fourth year, and the second between the eighth and ninth years, are always free from erosions. The milk-teeth may be of irregular form and bad structure, but they never show the peculiarity of the erosion. Hutchinson's assumption that erosions are attributable to syphilis is considered unwarranted, as otherwise they should appear upon the milk-teeth. That assumption also leaves unexplained the fact that the erosions appear upon particular groups of teeth, as has been already stated. They are also absent in many cases of undoubted hereditary syphilis, and present in many individuals in which no trace of hereditary syphilis is discoverable. In hereditary syphilis, rachitis and scrofula, the milk-

teeth are apt to be soft and friable, but the erosions of the permanent teeth cannot be explained as peculiarities of those diseases. The author believes that they are the result of disease which affects the individual at the time that the crowns are beginning to develop. Among the diseases which may have such an influence eclampsia, meningitis and severe attacks of choking in consequence of whooping-cough (for example) are mentioned. A single severe attack of convulsions in the first year of life might be sufficient to produce erosions on the teeth, the crowns of which were developing at that time. The theory is that the disease would cause a temporary suspension of the growth of the tooth, that it would soon begin again to grow vigorously, but that the interval would be marked by a furrow or erosion. After the first year of life cerebral disorders are much less frequent, and hence the infrequency of erosions upon teeth which are developed after that time. As erosions are believed to be so frequently caused by convulsive conditions, the author suggests the propriety of speaking of teeth convulsions. From one to two per cent. of all human beings have erosions on the teeth. A tendency to caries is manifest when they are present.

#### **Infantile Broncho-Pneumonia.**

DR. JULES SIMON said on the subject of treatment:

What shall be the treatment of infantile broncho-pneumonia? First of all, I insist that the little patient shall be kept in bed. If the child be less than a year old, you may find it difficult to enforce this requirement; the child is restless in bed, and insists on getting up. In such cases, you will do well to make a woolen sack and keep the little patient in it, covered with a thick shawl

and the legs wrapped in cotton batting. You can then take the child up and hold it on your knees, keeping it in a vertical position, which is better than the dorsal. But if the child is more than one year old, you can insist on its being kept in bed, the head and trunk elevated on an inclined plane. You will perhaps be surprised to see me urge upon you a requirement which seems to you so simple; but I deem it of great importance, and indeed the first condition, if your treatment is to have any real efficacy.

At the very onset of broncho-pneumonia, and when the fever is high, you may administer an emetic; but this is the only emetic that I allow during the course of the disease. Later on, when the child is depressed by the disease, and vomiting is difficult, you ought especially to guard against the exhibition of emetics, which will certainly do more harm than good, increasing the dyspnoea and general prostration. Nor would I advise you to give kermes, tartar emetic, or other antimonials which debilitate the vital forces. If in ordinary bronchitis you may employ with advantage—as you have seen me do—opiates, belladonna, aconite, codeia, do not think of prescribing them in broncho-pneumonia, where they cannot but be mischievous.

You should give your little patients stimulants to arouse the respiratory centre and pneumogastric nerve, whose functions little by little are depressed. Alcohol, in some of its forms, is indicated; so also is acetate of ammonium in the dose of four or five grains, or the carbonate of ammonium in such dose as can be borne without emesis. A good alcoholic preparation is Malaga wine, of which two or three teaspoonfuls may be given to a child under one year of age, and a proportionately larger quantity to older children. If the Malaga wine seems too sweet and disagrees,

or the child refuses it, you may use Marsala, port, or brandy; and from the judicious use of these alcoholic preparations you will derive great benefit.

I add to the treatment by alcohol the sulphate of quinine. Morning and evening I give to a patient four years old three grains, and half that quantity to a child of two years of age, while for a child one year old a grain is sufficient.

Both alcohol and quinine, under these circumstances, are antithermic and sustain the nervous system and heart; but it is particularly in enforcing and regulating the action of the heart that they do good.

This is about all I have to say relative to internal treatment. You should at the same time watch the state of the digestive organs; for distension and meteorism of the abdomen count among the causes which augment the dyspnoea; hence you will administer from time to time a little senna or magnesia to keep the bowels clear, while taking care not to provoke diarrhea.

It has been said that the revulsive treatment in pneumonia and broncho-pneumonia is a thing of the past, without any proved action whatever on the state of the lungs. I am certain that this is a mistake, at least as far as broncho-pneumonia is concerned. I am, in fact, in favor of mustard sinapisms to the chest at the onset of the pulmonary affection, and am sure that I have often seen marked relief follow their use; after that I apply dry cups to the thorax morning and evening.

I am also so old-fashioned as to believe in the efficacy of small fly-blisters about the third day, but they must be small—not more than an inch in diameter for older children, and less even for those that are younger. Not more than three or four should be put on at a time,



and should not be left on more than three hours, whether they draw or not; then they should be followed by a potato-poultice, and afterwards dressed with vaseline and lint. Two days after the application of the first series, you may apply a second series over another region, and in the course of two or three days, still a third series, thus pursuing the disease in its different stages, and shifting localizations. You must take care that the blister be not left on too long; and you must not forget to apply the poultice in order to moderate the cutaneous irritation: and if you are particular to carry out this direction, you will never see ulceration, sloughing or suppuration follow these vesicants.

From the point of view of hygiene, see that the room in which your patient is kept is never hotter than  $64^{\circ}$  or  $65^{\circ}$  F. Support the strength of the child by broths, gruels, milk, egg-nog, etc.; and, if vomiting follows the fits of coughing, give a small quantity of the potion of Rivière (which may be replaced in American practice by plain soda water, or any ordinary effervescent mixture), a little Vichy or Vals water, or a few sips of coffee, made without any sweetening.

Lastly, if the restlessness be too great, and the nights too much disturbed, a lavement (enema) of chloral (starch water, two ounces; chloral, seven and one-half grains) may be administered, or a grain or two of chloral may be given by mouth.

Do not forget that broncho-pneumonia is a disease of long duration, which demands of you much patience and careful watchfulness. You should then not readily yield to discouragements, and you will often see your efforts crowned with success in the recovery of patients whose condition long seemed desperate and even hopeless.

#### Prescription for Rachitis.

THE following is from the *Progrès Médical*: Phosphorus gr. 1-6; oil of sweet almonds f 3 viiss; gum arabic (powder) of each 3 iii  $\frac{3}{4}$ ; distilled water f 3 xss. M.—Two or three teaspoonfuls in coffee, a day.

#### Diarrhea of Children.

SENSEMANN recommends the subnitrate of bismuth, gr. iij-vj hourly, as almost a specific. Rossbach praises naphthalin, though not wholly free from irritating effects upon the kidneys and bladder. It is best given in doses of gr.  $\frac{1}{4}$ -ij-xv several times daily, in keratin or gelatin coated pills. Sansom gives calcium sulphocarbonate for infantile diarrhea. On account of its ready solubility it is the best of chalk preparations. Ten parts contain 1.8 parts of calcium. Stephenson recommends phosphate of sodium in small doses for diarrhea infantum, and in chronic catarrh of the small intestines and dyspepsia of children, Mayr uses pasta guarana (guarana uva) as an astringent, in doses of gr. v-x-xx with sugar, three times daily. A widely used remedy in diarrhea infantum is cornu cervi raspatum as a decoction:  $\mathcal{R}$ . Cornu cervi rasp., 3 xij; ext. glycyrrhizæ, 3 ijs; cort. cinnam. cass., 3 ss. M.—Make into a tea.

Another remedy well recommended is cascarilla bark; take  $\mathcal{O}$ iv; macerate for half an hour in 3 xx hot water, filter and add cinnamon syrup 3 v. Sig.—A teaspoonful every hour.

Wendt gives the following for chronic diarrhea infantum: Extr. calumbæ 3 j; decoct. salep., 3 iijss; elæo sacch. fœniculi, 3 iv. M. Sig.—One teaspoonful hourly (to be shaken).

For gastric and intestinal catarrh of children a safe prescription is:  $\mathcal{R}$ . Hydrarg. chlor. mit., gr.  $\frac{1}{6}$ ; pulv. gum

mos., gr. vijss. M.—Make into 10 powders. Sig.—One every three hours.

For the same with green-colored stools: *R.* Hydrarg. chlor. mit., gr.  $\frac{1}{4}$ ; pulv. rad. rhei., gr.  $\frac{3}{4}$ ; conch. praep., gr. ivss. M.—Make into 8 powders. Sig.—One powder three or four times daily.

Lebert advises logwood, 3 i boiled in water  $\frac{3}{4}$  iv and strained. To this add  $\frac{3}{4}$  vijss of simple syrup. Sig.—A teaspoonful hourly.

For diarrhea of children with acid stomach is recommended: *R.* Sodii bicarb., gr. xv; mucilag. gummi arab.,  $\frac{3}{4}$  iv; tinct. rhei. aquos., 3 ss; syr. aurant. cort., 3 vijss. M. Sig.—A teaspoonful every one or two hours.

For weakness of digestion and asthenic diarrhea Wendt gives: *R.* Rhizom. calami., 3 ss; in aqua ferv. q.s. and filter; add; gummi arab., 3 j; sacchari, 3 ij. M. Sig.—A teaspoonful every two hours.

Ipecacuanha root is recommended by Guéneau de Mussy in diarrhea infantum.

The following formulæ are largely used in the early stages of the summer diarrhea of children: *R.* Tinct. opii deodorat.,  $\mathfrak{M}$  xvi; bismuth. subnitrat., 3 ij; syrupi., 3 ij; misturæ cretæ, 3 xiv. M. Sig.—Shake. One teaspoonful every two to four hours. Bismuth subnitrat, 3 ij; pulv. ipecac. comp., gr. ix. M.—Make it into twelve powders. Sig.—One powder every three hours.

For cholera infantum the following is serviceable: *R.* Tinct. opii deodorat.,  $\mathfrak{M}$  xvi; spts. ammon. aromat., 3 j; bismuth. subnitrat., 3 ij; syrupi,  $\frac{3}{4}$  ss; misturæ cretæ,  $\frac{3}{4}$  iss. M. Sig.—One teaspoonful every two or three hours.

An infant of six months can take one-half the dose of the last three formulæ above given, and one of three months, one-third the dose.

For the more chronic cases of these complaints muriatic acid and pepsin saccharat. may with advantage be substituted for the chalk.

Money advises the following: *R.* Bismuth. subnit., gr. iv; sodæ bicarb., gr. iv; pulv. tragac. co., gr. iij; spt. chlorof.,  $\mathfrak{M}$  ij; aq. carui., 3 ij; t.d.s.

When improvement has set in, and to succeed the other agents, Goodhart recommends: *R.* Liquor ferri. nitratis; acidi nitrici dil.,  $\mathfrak{a}\mathfrak{a}$ , 3 ss; syrupi zingiberis,  $\frac{3}{4}$  j; aquæ, q.s., ad.,  $\frac{3}{4}$  iij. M. Sig.—One teaspoonful three times daily for a child of two years.

Conby, of Paris, describes the symptomatology and etiology of this affection, stating that, in Paris, the mortality from this disease during the summer is 600 per month. He advises the use of dietetic measures, the subnitrate of bismuth and laudanum. In the severer cases the writer recommends the following prescriptions, which we quote from the *Medical News*: Aquæ destillat., 3 12 $\frac{1}{2}$ ; syrup lydon, 3 5; acid hydrochloric dil.,  $\mathfrak{M}$  8.—M. Sig.—Teaspoonful every two hours.

Sacch. pulver., 3 2 $\frac{1}{2}$ ; naphthalin, gr. 15; iodoform, gr. 3; ol. bergamot, gtt. 2.—M. Ft. in chart. 20 in num. Sig.—One powder every hour, in milk.

Naphthalin, gr. 8; spirit vini gallici,  $\frac{3}{4}$  2 $\frac{1}{2}$ ; syrup. althææ, 3 12 $\frac{1}{2}$ . M. Sig.—To be taken during twenty-four hours, in teaspoonful or coffee spoonful doses. —*Medical and Surgical Reporter*.

## OBSTETRICS.

### Delivery by the Vagina in Extra-Uterine Gestation.

At a recent meeting of the Obstetrical Society of London, a paper on the above subject was read by Dr. Herman. (*Lancet*.) The author said that no general rules could be applied alike to all

cases of extra-uterine gestation and at all periods of their history. Different cases required different treatment, and individual cases required different treatment at different periods in their history. The object of the paper was to consider in what cases and at what time an extra-uterine gestation cyst might with advantage be emptied through the vagina. The author first related a case under his own care. The patient was 40 years of age. The extra-uterine pregnancy was preceded by a long period of sterility. Symptoms like those of rupture of the sac occurred at about two months' pregnancy. Fœtal movements ceased at eight months' pregnancy. At nine months spurious labor pains occurred, and lasted nearly a month, and these labor pains were accompanied by spontaneous dilatation of the cervix. Then the pains went off, the breasts diminished in size, and the cervix contracted. To attain certainty as to the diagnosis, the cervix was subsequently dilated, and this dilatation was followed by febrile disturbance. The cyst was then opened per vaginam, the child removed, and the cyst frequently washed out with carbolic solution. The placenta came away on the sixteenth day. Two months and a half afterwards the cyst had completely closed. The author had collected thirty-three cases in which an extra-uterine gestation cyst had been emptied by the vagina, and from an examination of them he drew the following conclusions :

1. The operation of opening an extra-uterine gestation sac by the vagina early in pregnancy, before rupture has taken place, by the cautery, knife, or otherwise, is a dangerous and unscientific proceeding. Abdominal section ought always to be preferred.

2. Soon after rupture has taken

place, when interference is called for to arrest hemorrhage, abdominal section is more likely to succeed than vaginal.

3. When rupture has taken place, and the effusion of blood is followed by pyrexia, the indications for incision of the vagina are the same as those in hæmatocele from any other cause.

4. At, or soon after full term, before suppuration has taken place, there may be conditions which indicate delivery by the vagina as preferable to abdominal section.

5. These are, when the fetus is presenting with the head, breech, or feet, so that it can be extracted without altering its position ; and

6. When it is quite certain, from the thinness of the structures separating the presenting part from the vaginal canal, that the placenta is not implanted on this part of the sac, and it is not certain that the placenta is not implanted on the anterior abdominal wall.

7. If the child cannot be delivered by the vagina without being turned, abdominal section should be performed.

8. No attempt should be made to remove the placenta.

9. The after-treatment should consist in frequent washing out of the sac.

10. After suppuration has taken place, the spontaneous opening of the sac into the vagina is one of its more favorable terminations.—*Therap. Gaz.*

#### Treatment of Puerperal Eclampsia.

DR. CHAS. JEWETT, in an article published in volume XII of the *Gynecological Transactions*, concludes the same as follows :

As regards the mode of administration, the stomach of the eclamptic patient should not be trusted for the absorption of *veratrum viride*. The only reliable method of bringing the circulation rapidly under its influence is by the

hypodermic syringe. Prompt effects and precision of dosage in this class of cases are generally impossible by the stomach. Some irritation at the seat of puncture follows the hypodermic use of the fluid extract, but with a clean needle supuration never results.

The average dose should be from ten to twenty minims. The smaller dose repeated in a half-hour will doubtless suffice in the majority of cases. Yet I have usually preferred to place the patient at once fully under the influence of the drug. The guide to the dosage is the frequency of the pulse. Experience seems to justify the statement that no convulsion will occur while the patient is sufficiently under veratrum to hold the cardiac pulsations below sixty to the minute. The average time required to develop the full effects of a single subcutaneous injection is thirty minutes. If the desired result is not attained after that interval, the injection should be repeated in the same or smaller amount, as may be required. Five-minim doses at longer intervals will suffice to maintain the diminished pulse-rate. I have rarely repeated the drug, however, after the circulation has been once brought profoundly under its effects, the total dosage seldom exceeding twenty to thirty minims of the fluid extract.

My experience with veratrum in eclampsia comprises twenty-two cases, most of them seen in consultation. Sixteen were women pregnant for the first time. In twenty-one cases, the first convulsion occurred before or during the first stage of labor. In one, the first attack was post partum. In sixteen, the labor was complicated with the use of forceps or version, twelve of the operated cases being primiparæ. It will be granted that these were not of the most favorable class of eclampsic

patients. In the whole number, there were six deaths, three by complications and three by eclampsia. One of the cases dying by convulsions was complicated edema of the lungs. The mortality from all causes was therefore 27.2 per cent., 13.6 per cent. dying by eclampsia. Of the deaths by complications, one (that of the patient whose first convulsion was post partum) was due to pulmonary edema, two to septicemia. In each of the three cases dying by eclampsia, from twenty-four to thirty or more convulsions had occurred before the veratrum treatment was begun. If it be granted that the latter three cases were practically hopeless before treatment, and that the two septic deaths were preventable deaths, these results may be taken as affording some evidence of the value of the treatment. In the majority of cases, however, other measures were also used. Chloroform was given to gain time for the action of veratrum, and hydragogues were more or less freely used in a majority of instances as a supplementary measure.

But we need not base our estimate of veratrum on these results alone. The capabilities of the drug are more conclusively shown by the unfailing certainty with which in my hands it has arrested the convulsive paroxysms, when given early. In all except the three cases fatal by eclampsia, the veratrum treatment was commenced before the eighth convulsion. In none, with a single exception, did a paroxysm occur after the treatment was established. This patient had already had no less than thirty convulsions, the pulse was 172, and the woman nearly moribund. Sixty minims of the fluid extract in three doses reduced the pulse to only 100. The paroxysms continued, and the patient died within two hours. With



this exception, the pulse fell in every case below sixty within a period varying from 12 to 45 minutes, after the full hypodermic dose. In no case was there a convulsion while the circulation was sufficiently under the influence of the drug to hold the pulse at sixty or lower. This experience, then, seems to show that in veratrum, if given early, we have a well-nigh certain means of controlling eclamptic convulsions.

As regards the safety of the drug, I may say that in no instance has a dangerous prostration been noted. The most unpleasant effects experienced have been temporary nausea and depression. Even these symptoms have been transient, passing off in a few hours.

One of the above mentioned cases is of especial interest, as going to show the possibility of long continued use of veratrum without harmful results. The patient was a primipara in the sixth month of gestation. She was seized with a convulsion, directly after which the urine was found loaded with albumen, turning solid with heat and nitric acid. The treatment was chloroform and the bromides. Two days later she had a second convulsion. I was then asked to see her. She was at that time partially unconscious and delirious. Our first proposal to interfere with a view to terminate the pregnancy was abandoned owing to the religious scruples of the friends, the family being Catholics. Twenty minims of the fluid extract of veratrum were given in two doses by the mouth. Her physician informs me that the patient continued to take this preparation in doses of six drops, three times daily for three weeks, when she was delivered. The drug was continued in diminishing doses for a week longer.

The patient steadily improved under

the treatment, had no further convulsions, and recovered rapidly after delivery. The customary measures were used for the treatment of the nephritis.

To recapitulate, the advantages claimed for veratrum, when used in accordance with the plan above described, are briefly these:

1. It is at once a harmless and an extremely potent measure.
2. It is eminently a manageable agent, the pulse affording a ready and precise guide to the dosage.
3. It is prompt in its action, and easy of administration.

In conclusion, it should be noted that veratrum is not advocated as an exclusive reliance in the treatment of convulsions.

Chloroform by inhalation, as the most prompt of all anti-eclamptic measures, should be given till the circulation has been brought fully under the influence of veratrum. During operations its use as practised in other artificial deliveries will be an additional safeguard against convulsions.

Cathartics will be of great service to reinforce and supplement the treatment.

The acceleration of the labor by judicious means and the induction of labor, when not spontaneously established, are always indicated on the occurrence of eclampsia.

#### Iodoform in Obstinate Vomiting of Pregnancy.

DR. JOHN B. STONE writes: I have had several cases where iodoform, suspended in glycerin, applied on cotton against the os uteri, has controlled obstinate vomiting in pregnancy. The treatment is to be continued daily for a week or so, and then stopped, and in some cases there will be no further vomiting for many days. The treatment might, of course, often be objected to by patients.—*N. Y. Medical Journal*.

## DISEASES OF WOMEN.

**Sterility, Especially in Syrian Women.**

DR. S. LOUISE WEINTRAUB, in concluding an interesting article on this subject, gives the following histories :

A frequent cause of sterility is the remains of a bad cellulitis or metritis, the result of some heroic treatment. Sterility often follows the birth of a child, and is due to the lack of proper care after parturition. Or when the patient has taken cold and a slight inflammation of the genital organs has followed, this has been greatly increased by injudicious applications made by a midwife, the result being a metritis or cellulitis.

In my practice, when I found upon examination that a woman who was sterile, had no visible or serious hindrance to conception, one of my first steps in undertaking her treatment was to have the husband sent to a doctor, who would examine the spermatie fluid and send me a written record of the result. If that was as it ought to be, I would proceed with the woman's case. Frequently a small and undeveloped uterus seemed to be the only cause of sterility. In these cases I would use dilatation by sea-tangle tents. My mode of proceeding would be to order the patient to let me know the day that the menstrual period was finished. That day she went to the bath, and the next I would go to her house and introduce as large a tent as possible.

The following cases illustrate my practice :

I.—Greek, of the wealthy class, was married when fifteen years old, and is now over twenty-seven years of age.

On examination I found her uterus to be one and a half inch in length, very small, but movable. Her menses were regular. There was no inflammation of the genitals, except a slight irritation of

vagina. I treated her a few times, and then, on the sixth day of her menstrual period, I dilated the os uteri with a No. 1 sea-tangle tent. I found much difficulty in introducing it ; but kept it in place with pledgets of cotton dipped in glycerine.

The tent was removed after eight hours, the patient not having moved all this time, but having lain perfectly quiet upon her back. That night there was connection, and the patient remained in bed three or four days. The husband was also under treatment. She did not become pregnant until the second menstrual period, when she conceived, and afterwards was delivered in due time of a fine healthy boy.

II.—Greek, aged eighteen years, married at the age of thirteen ; has never been pregnant during the five years of her married life ; menses regular and painless. Her husband was well developed and strong. On examination I found her uterus very small, but movable and not inflamed. Her entire appearance was very girlish—even more so than is general among Eastern women. At the same time after the commencement of the menstrual period, as was chosen in the former case, a tent was introduced, and this was followed by the same restriction to bed. She stayed in bed three days, and I did not allow her during the entire month to do any work. She became pregnant that same month and at full term gave birth to a nice little girl. I could give the histories of other similar cases ; but these show some points of my line of treatment.

I found that I was successful when the patient had not been tampered with much by midwives, and if, at the same time, the husband had tonic treatment, if he were not robust. Another point I found to be important was to introduce the tent directly after the men-

strual period, before any connection had taken place, and to have connection accomplished immediately after removal of the tent. I also advised that connection should not take place within two or three days of the next menstrual period. If the menstrual flow did not appear then, I forbade any further intercourse until the uterus had risen out of the pelvis.

I think it extremely important that a microscopic examination of the spermatic fluid should be made before any effort of the kind I have described is made. For, in not a few cases under my observation, the men proved to be at fault, and were beyond hope of help, nothing being the matter with the women.

In my experience I have found that but little could be done for cases of old cellulitis or metritis. Treatment in cases of recent cellulitis was more hopeful, and even old cases were sometimes relieved.

Many of my successful cases I was unable to follow up, because the women were afraid I would expect some remuneration. I was frequently puzzled by not finding any visible cause for sterility in either my patient or her husband.

I had no results from the use of the sound, the introduction of which, two or three times a week, is advised in some text-books for the treatment of sterility. I also found that mischief might result from frequent introduction of the sound after intercourse between husband and wife. Women will become pregnant after long years of sterility. So I never used the sound except immediately after a period. The rule and custom in the East is that connection shall never take place until after the woman has been to the bath. Usually the eighth day is the one observed.

I have had no opportunity to test what effect electricity might have in such cases as we are considering. The frequent success of the treatment with tents was due, I think, to the fact that dilatation overcome the stricture of the internal os, and frequently started up a retarded development of the body of the uterus. Again, hardness of the cervix—a frequent cause of sterility—was often overcome by this treatment.

The fact that I never observed real or serious inflammation as a result of dilatation with tents was due, I think, to my never introducing a tent if the slightest tenderness of the uterus was present, or if the introduction of the sound was unusually painful. I also watched my patient carefully, never allowing her to get up if the slightest tenderness existed, and not permitting intercourse, if the tenderness persisted for more than a day.

Though various plans have been suggested for treatment of sterility, it has seemed to me that there is very little positive knowledge on this subject. Of course, I treated inflammations, with the regular remedies in use. But for many of my patients I was unable to do anything of the sort, for they did not seem to need it, and it did not help them. I should be very glad to have other ideas in regard to the treatment of sterility, on which so much of the weal or woe of Syrian women depends; for any physician, being among them, cannot help having his or her strongest sympathies aroused by the misery and unhappiness which this condition entails.

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#### Prolapse of the Vagina.

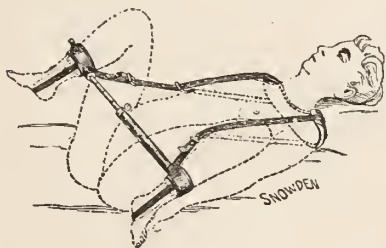
PROFESSOR PARVIN advises that prolapse of the vagina be treated by astrigent injections, having the bladder frequently emptied, especially if a cystocele is associated with the prolapse, which is

frequently the case, and apply a suitable elastic ring pessary; if the pessary is uncomfortable or cannot be worn, a large tampon of absorbent wool dipped in a solution of tannin and glycerin, introduced in the morning and removed at night, suffices.—*Col. and Clin. Record.*

**A Modification of the "Perineum Distender," to Avoid its Interference With Respiration.**

DR. W. W. KEEN says, in *Journal American Medical Association*:

In the frequent use of the "perineal distender," I have found the strap which passes under the nape of the neck very objectionable. This strap flexes the legs and supports their weight. While doing so the weight of the legs pulls the head and neck strongly forward, and thus often seriously embarrasses the respiration. To avoid this, I have had the wooden shoulder-piece of the old Day's apparatus for fracture of



the clavicle slightly shortened, and find it answers admirably. Under its loops, over each shoulder, two straps are passed, with a buckle turned wrong side foremost at one end. The other free end, after passing through this buckle in the armpit, then is buckled to the cross-piece between the legs. By this means the pressure is brought on the shoulders instead of the neck, and respiration is entirely unimpeded.

I have also had two straps attached at right angles to the straps for the legs. By this means the leg straps can be secured above the calf as usual or at

the ankle. In this last position the new straps, by passing under the foot-soles, more completely flex the legs, and get the feet out of the way of the operator.

**Divulsion of the Cervix.**

DR. G. F. HULBURT, in the *St. Louis Courier of Med.*, concludes an article on this subject as follows:

1. We see manifest in the form, structure and surroundings of the uterus, as a whole, conformity with uniform order of things.

2. This design is adapted to produce the greatest degree of efficiency attainable and each and every part and relation of the organ is necessary, that this efficiency be preserved.

3. Any means applied for relief which does not restore the natural order of things is not correct, in principle or practice.

4. Dysmenorrhœa from mechanical causes or stenosis is found only in the small minority of cases, if at all.

5. The operation of divulsion of the cervix can find no place in scientific medicine; it is unsurgical and the results tend to the pernicious.

6. That it is allowable only when confined within the physiological limits of the tissue acted upon.

7. That the injunction of the divulsionist to his patient must be, Go thy way, rejoice now, for ye know not the day nor the hour when suffering and sorrow may attack you; we prefer to have it thus. Go thy way; sin no more and be whole.—*Arch of Pediatrics.*

**Common Forms of Uterine Disease.**

DR. J. D. SMITH, in the *South-West. Med. Gaz.*, says that uterine displacements, cervical endometritis, vaginitis and pelvic cellulitis are generally presented together, and hence none of them can be therapeutically ignored in seeking



the recovery in any given case. In proportion to the displacement of the uterus, the circulation becomes obstructed; hyperæmia follows; long continued hyperæmia results in hypertrophy; and unrelieved hypertrophy, sooner or later, leads to atrophy. Whenever the fundus passes a vertical position backward, either with or without prolapsus, it is pathological, and tends to constant aggravation, and in such cases of long standing objective changes are generally great compared with objective symptoms.

#### On Erosions of the Cervix Uteri, their Pathology and Treatment.

DR. E. W. CUSHING concludes an article published in the *Annals of Gynecology*, as follows:

In the matter of treatment of erosions everything depends on the condition of the uterus; for the erosions are merely to be considered as a symptom of a glandular endometritis, which has become visible, either by spreading beyond the normal limit of the cervical columnar epithelium or to the portio vaginalis, or by everting a more or less patulous or lacerated os; thus in either case coming into the field of view, particularly when a bivalve speculum is used.

For convenience it is well to divide the cases into—

*a.* Those of so-called simple erosions in virgins or nulliparæ, associated with antelexion of the uterus, or with stenosis of the os, or with elongation of the cervix, or with various combinations of these conditions, in most cases causing dysmenorrhœa.

*b.* Erosions and endometritis of moderate degree, with subinvolution, following parturition.

*c.* Erosions with ectropium, as complications of a lacerated cervix. In either of the last two classes there may

be a more or less complete rupture of the perineum; in any case, there may be parametritis, pelvic peritonitis, salpingitis, adhesions, etc.

*d.* Inveterate cases with induration of cervix, and suspicion of commencing malignant degeneration.

I believe that nearly all cases will fall into one or the other of the above categories, and I believe that, except in the second class, and provided there is no inflammatory trouble in the parametrium, by far the most satisfactory results are to be obtained by surgical measures.

For the first class of cases, those of erosions in cases of antelexion, the last being usually congenital, or a survival of the infantile form, aggravated by repeated menstrual congestions, there are three modes of treatment, viz.:

1. The medical, comprising douches, dilatations, tampons with medicated glycerine, or boro-glyceride, intra-uterine applications, etc. This has been admirably elaborated and described by my friend, Professor Wylie, and in many cases, with care and persistence, it is effectual.

However, it is a rather serious matter to condemn a virgin to a long course of local treatment, and with the best of care it often fails to give satisfactory results, even in sterile married women, where ethical objections have less weight. This treatment, however skillfully applied, is, I believe, usually inferior to surgical interference.

2. Slitting the cervix, at one time in vogue, and lately recommended, may have its place in certain intractable cases, where the cervix is extremely hard, but such cervixes must be very rare, except as complicated with a state of hypertrophy, better cured by partial amputation, *i. e.*, of the excess of tissue.

3. For the vast majority of such cases, in fact for all but exceptional

ones, and particularly where there is endometritis and stenosis of the os, it is much better to advise an operation at once; for if properly done, with complete antiseptic precautions, there is no danger, there is little subsequent discomfort, and a speedy and satisfactory cure.

The patient is etherized, the vagina well washed with sublimate solution 1 : 2000, the cervical canal well disinfected with a stronger solution of the same on an applicator, the os dilated with Goodell's strong dilator, or Wylie's modified Sims' dilator, the diseased mucous membrane scraped out with a Sims or a Martin-Recamier curette or a sharp spoon, removing thoroughly the glandular hypertrophy.

Injection of iron solution is not necessary, although advised by many.

If there is hypertrophy of the cervix it is to be removed, or if there is ante-flexion a stem pessary, well disinfected, and rubbed with iodoform, is to be introduced into the uterus, after the latter has been carefully washed out with the sublimate solution.

Some iodoform-wool is placed against the end of the stem to retain it, and remains there for two or three days.

The patient keeps the bed for a week, and then the stem is removed with antiseptic precautions. In a few days more she may get up, and the suffering and trouble are usually found to be cured; the erosions, naturally, are gone. Seldom is after treatment necessary.

I suppose that it is hardly necessary to insist here on the fact that neither this nor any other operation on the cervix is to be undertaken while there are acute inflammatory processes going on in the uterus or the parametrium. Emmet has sufficiently pointed out the necessity of removing all in-

flammation by rest, hot douches, tampons, etc.

With our present knowledge of the frequency of salpingitis, and of the bacterial excitors of inflammation, we can understand better than formerly the reasons why these precautions are necessary, and how often the whole focus of inflammation can be removed in the form of a diseased fallopian tube. For cases of stenosis with elongation of the cervix, erosions, and endometritis, mere dilatation is often not sufficient, and it is desirable to remove a portion of the hypertrophic tissue, and at the same time to restore the proper shape to the cervical canal and os externum.

It is not my present purpose to enter into the question of the choice of operations; the habit and skill of each surgeon may accomplish a good result in various ways.

The next class of cases is where, after parturition, although there is little laceration of the cervix, the uterus remains subinvolved, with endometritis and erosions.

I believe that in these cases the subinvolution is caused by the endometritis and not *vice versa*, i. e., they are the results of a mild sepsis, or bacterial infection; and precisely these cases, when not too inveterate, are susceptible of cure by antiseptics, such as nitrate of silver, tincture of iodine, or strong carbolic acid; of these the latter applied thoroughly, on a cotton-holder, is the most effective. Of course, hot douches and ergot, strychnia, etc., are also indicated, with vaginal tampons of glycerine 14, alum 1, boroglyceride 1, as recommended by Wylie.

Even in old cases, where the uterus is enlarged and hardened, much good can be accomplished by this sort of treatment, but the results are not usually very satisfactory; and in the next class

of cases, where there is cervical laceration, the indications for surgical interference are even more imperative.

Nevertheless, were want of courage, or opportunity, on the part of the patient, or a want of faith in surgical measures on the part of the physician, exclude operative interference, the patient can be made comfortable, and with patience, sometimes, apparently cured without operation. Some women have such a horror of a knife that they will go about all their lives with a lacerated cervix and ruptured perineum, never being quite well, and requiring more or less perpetual treatment, rather than undergo an operation. This state of mind is not confined to women; in fact I think they are braver than men, who, when they have hæmorrhoids, or hernia, hydrocele, or spermatocele, are notoriously unwilling to undergo any radical operation, but find that their "business" requires it to be perpetually postponed to a more convenient season.

For such women much can be accomplished, even in cases of ectropium, by puncturing the cysts, scraping off as much of the glandular structure as is possible under the influence of cocaine, and applying at intervals strong carbolic acid to the diseased mucous membrane.

The dry treatment as used by Dr. Engelman is very effective in healing the erosions, and promoting involution of the everted lips.

He dusts the parts with iodoform, and packs against the erosions balls of iodoform-cotton wool, about an inch in diameter, each of which balls is enclosed in a thin layer of styptic iron-cotton. This remains in place for two or three days, when it is removed and a new dressing applied.

Under this treatment, without douches or glycerine tampons, the erosions heal,

the glands diminish, and the everted lips come together. Dr. Engelman was kind enough to show me several such cases in St. Louis, and it struck me as a very nice, clean, and effective treatment.

Apostoli, of Paris, who has been kind enough to send me his pamphlet, uses a constant current of electricity, with one pole in the uterus, and with a large pad of fuller's earth for the other pole on the abdomen; by this means a current of high tensile strength can be used without much pain, which effectually arrests the glandular development in the endometrium, causing an eschar, and thus in Apostoli's opinion, answers the purpose of a curetting.

Where there is not much laceration of the cervix, nor rupture of the perineum, these various measures answer very well for patients who have a fear of operative measures, and have a skillful and persevering physician.

Nevertheless, it seems to me more scientific and satisfactory to give the patient ether, scrape out the uterus after thorough disinfection, remove the glandular hypertrophy at once, repair the lacerations, make a good os, covered with flat epithelium, and thus cure the patient.

At the same time, if, as is very frequently the case, there is a rupture of the perineum, possibly complicated with cystocele or rectocele, the perineum can be repaired, and the appropriate colporrhaphy performed, to remedy the other lesion.

With little pain, and no fever, the patient thus gets in an hour a benefit which she can seldom receive in years of local medical treatment.

How much more, then, in cases where there is any symptom of malignant degeneration of the erosions, is it the plain duty of the attendant physician

to recommend thorough removal of the suspected tissues?

The consensus of authority all over the world asserts that inveterate cervical erosions are peculiarly liable to cancerous degeneration.

I hope that the foregoing figures have made it clear that these so-called erosions are not in any sense losses of substance, caused by mechanical irritation, etc., but that they are an active new formation of glands, prone to recur, even when removed, readily invading the portio vaginalis, where it should be covered by flat epithelium, and thus, by all analogy of pathology, they are to be viewed with suspicion, and removed with thoroughness.

#### **Treatment of Rupture of the Perineum.**

DR. ARTHUR E. SPOHN, in a communication to the *Medical and Surgical Reporter*, recently, gives the following testimony :

This morning (October 21, 1887), I removed the stitches from the perineum of a patient upon whom I operated for ruptured perineum nine days ago, and found the result perfect. While the case is fresh in my mind, I have considered a short article on this operation not out of place. This subject has been so freely discussed in the journals lately that I almost hesitate to add to the discussion the conclusions from my limited experience. The fact that I have succeeded in securing admirable results by what I believe to be a new method of treatment, is the only apology I have to offer for this short article.

In the case in question the laceration was recent, the patient having been confined on the 9th of October of her first child. She was 30 years old, and her perineum was so rigid that I could not prevent a slight rupture. In regard

to the case of the perineum, I have lately come to think the obstetrician should carefully watch the progress of the second stage of labor, exposing the parts to view. I have long since abandoned the practice of supporting the perineum, but I believe it is absolutely necessary to control the head of the child, and to direct the progress of labor so as to prevent a rupture of the parts. This can be done most successfully by bringing the occiput or chin, as the case may be, well forward under the pubic arch, and by holding the child's head back by well directed pressure until the perineum is slowly and successfully passed. If a perineum can be saved I think this will do it. As an adjunct to the method, I invariably pour olive oil or vaseline into the vagina, between the pains, when the head is pressing against the perineum.

After the third stage of labor is completed, a careful examination should be made by thoroughly cleansing away all blood with a warm water antiseptic solution. For this purpose I prefer boracic acid. If, then, any rupture be detected, no matter how small it may be, it should be stitched up immediately ; for in this, as in any other wound, the sooner the parts are nicely adjusted the better.

The following is the method I am now using, and I am pleased to say with perfect results: In a recent rupture, with the parts so much swollen that if the thighs are pressed together the perineum bulges forward, the deeper parts are firmly pressed together and the ruptured portion is really in good position to heal. This would, no doubt, often take place did not a clot of blood now and then sweep through, having irritating discharges in contact with the torn surfaces. But, bearing in mind the fact that this is very likely to happen,



I treat these ruptures just as I would any other wound, by first irrigating the part with some antiseptic lotion; then, as soon as all bleeding has ceased, I stitch it up very carefully so that there is no gaping between the stitches, and no point exposed to the discharges which must necessarily pass through the outlet of the vagina. I never insert deep sutures, and do not consider them necessary in cases of recent rupture. After washing out the vagina with a syringe, using hot water and boracic acid, I pass a pledget of raw cotton tied to a string into the vagina, carrying it well above the ruptured part. I use raw cotton because it will not absorb the blood or allow it to pass. I now irritate the wound with the hot boracic acid solution until all hemorrhage ceases, and then adjust the mucous membrane nicely and stitch it carefully with silk thread, using an ordinary sewing needle. I next smear a little vaseline over the part, remove the cotton and wash out the vagina. This completes the operation, and the patient is afterward treated as if no rupture had taken place. I remove the stitches on the eighth or ninth day. In conclusion, I may state that I always bathe the genitals of a lying-in woman, and wash out the vagina once or twice daily with a boracic acid solution, and dust the parts with powdered boracic acid when any lesion has taken place.

#### ♦♦♦

#### DISEASES OF CHILDREN.

##### Heart Disturbances in Children Due to Distension of the Right Auricle and Pulmonary Artery.

DR. JOHN M. KEATING (*Medical and Surgical Reporter*):

In an interesting article by MARTIN DE GIMARD in the *Revue Mensuelle des Maladies de l'Enfance*, upon the relations existing between the right heart

and diseases of the liver—an association as frequent as between those of the left heart and the kidney—there is the report of an interesting case, which may be summarized as follows: The subject was a boy 11 years old, who had hypertrophic cirrhosis of the liver without jaundice. There was nothing in the antecedent history of the case to attract attention. In 1887, an enlargement of the abdomen was noticed; the boy complained of a daily increasing difficulty in buttoning his pantaloons; and in addition, he had attacks of vomiting. These were the principal symptoms; another, which was brought out by questions, was that his face became deeply cyanosed after running from school; indeed, his father frequently scolded him for “getting ink on his lips.” These symptoms increased rapidly, and the boy soon had slight panting after walking and some œdema of the lower limbs, and small quantities of albumin were found in his urine. Dr. Cadet de Gassicourt saw the case, and hesitated in his diagnosis between a primary affection of the heart and one of the liver. After a time the abdomen was tapped, and a large amount of fluid was evacuated; an enlargement of the liver was detected, and the diagnosis was established.

The feature in this case which interests us most is the condition of the patient's heart. There was great dilatation of this organ, but there had never been a murmur while the child was in the house—though there was a marked clacking second sound over the area of the pulmonary artery—nor had there been any pulsation in the jugular veins. This case evidently represented a typical condition of cardiac enfeeblement and engorgement, with dilatation of the right heart, caused by a primary hepatic affection.

Gimard discusses the question of cardiac sounds in cases of hepatic cirrhosis, and quotes some observations of Laurent in his thesis on this subject. In one case of atrophic cirrhosis there was intense dyspnœa, double pulmonary congestion, and œdema of the lower limbs. In this case there was a systolic

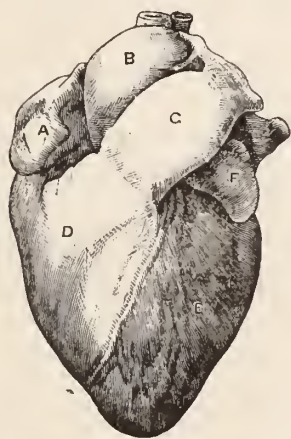


FIG. 1.

A. Right auricle. B. Aorta. C. Pulmonary artery. D. Right ventricle. E. Left ventricle. F. Left auricle.

murmur over the aortic area, which was supposed to be dependent upon aortic stenosis; but at the autopsy the valves were found normal, and the right heart dilated and engorged. The post-mortem appearances in all the cases noted were similar.

There are so many conditions of the system which will produce cardiac weakness, that it presents a most interesting study in children's practice. The affections of the right heart in children have scarcely received the attention they deserve, especially those which are functional.

In the ordinary position of the heart, a moderate degree of distension of the right auricle and ventricle will not cause any encroachment on the vessels as they are given off; but, if the right auricle becomes distended to any very great extent, in all probability a certain

amount of pressure would be produced upon the aorta, and just at that portion where a constriction would cause a systolic murmur. This would be the more apt to take place if the pulmonary artery was also over-distended. As I look at a specimen which I have before me as I write, I cannot but feel convinced that the theory I have just offered in explanation of the systolic *bruit* in anæmic children, and in those in whom the heart-muscle is worn out or the nerves are toneless or exhausted, is tenable. A glance at the diagram, which I have drawn from nature, I think shows this condition.

Figure 1 represents an antero-posterior view of the heart, with the right auricle empty and the aorta of normal size.

In studying the specimen, I carefully distended the auricle and pulmonary artery with soft cotton, being careful not to over-distend it, but simply to fill out its relaxed tissue. I then placed

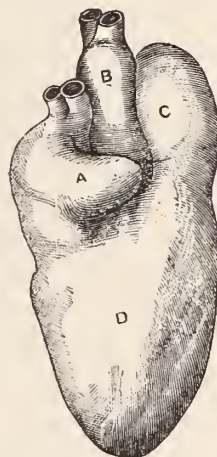


FIG. 2.

A. Right auricle. B. Aorta. C. Pulmonary artery. D. Right ventricle.

the heart on edge, as it were, so as to show almost the whole right auricle, except that portion behind the aorta.

From this view, which is shown in Fig. 2, it will be seen that the aorta is dis-

tinctly narrowed in calibre by such distension of the vessels as I practised. This experiment has suggested to me the important question: Can the systolic murmur which is noted in the cases of Laurent, without any aortic lesion, and the enormous congestion of the right heart after death, be explained by the reciprocal pressure exerted by a distended auricle and a distended pulmonary artery?

My attention has been recently called to another peculiarity of the cardiac rhythm, which, though at first I believed it was confined to children, is, I am now satisfied, frequently found in nervous, worn-out hearts of anæmic adults, and especially of young women and young men.

This peculiarity consists in an irregularity in the impulse of the heart, which is dependent upon respiration, and is probably due to a choreic movement of the right heart when it finds itself deprived of its blood-contents by the sudden exit of its blood in expiration. The heart, in health and in the adult, is a well-toned muscle, capable of accommodating itself to all circumstances. In childhood, and especially in rapidly growing children and cases of anæmia or chlorosis, the heart muscle keeps its tone when the stimulus of blood within its cavity is felt. As the air leaves the lungs, the pulmonary artery is called upon immediately to supply blood to its radicles, and when the heart is deprived of this stimulus, its action becomes at once excessively rapid and possibly irregular. During normal breathing, the heart's action will be noted as rather quick or possibly weak; when the breath is held, it will gain strength and be slower; but during forcible expiration it will become irregular, and possibly intermittent, and excessively rapid. I believe these phe-

nomena to be, to a certain extent, normal in childhood; but when adults exhibit a puerile heart, it is undoubtedly an evidence of weakness of the heart muscle—a weakness which is distinguishable from the ordinary functional disturbances of hearts under the influence of tobacco, and I believe particularly limited to the right heart.

#### On Revaccination.

DR. G. SOMMA is an enthusiastic partisan of vaccination and recommends energetically the introduction of compulsory revaccination in his country. Taking into account the whole foreign and Italian literature on the subject, he formulates his views in the following sentences:

1. The protective effect of vaccina against small-pox is indubitable.
2. This effect is limited in time, and vanishes after ten to twelve years.
3. Revaccination, therefore, is indispensable, for those successfully vaccinated in childhood, as well as for those who have passed through variola and variolis.
4. Revaccination almost perfectly protects the body from an attack of small-pox.
5. Its necessity is founded on scientific and experimental facts.
6. The age of adolescence offers the best opportunity for effective vaccination.
7. It is to be performed with animal lymph exclusively.

Vaccination and revaccination are the only means to put an end to continuously returning small-pox epidemics.—*Arch. di Patol. Infant.*

#### Grindelia Robusta in Pertussis.

THE *Paris Médical* publishes a communication from M. BILHAUT (read at the Société de Thérapeutique) on the

action of *grindelia robusta* in whooping-cough. The *grindelia robusta* is a perennial plant indigenous to Mexico and California. The active principle is a resinous substance possessing antispasmodic properties, and at the same time stimulating the mucous membrane. It is efficacious in bronchitis and also in chronic cystitis. It is eliminated by the kidneys. The tincture, fluid extract, or syrup of *grindelia robusta*, in cases of whooping-cough, stops vomiting and the other painful symptoms, and transforms severe whooping-cough into a mild affection of short duration. The dose is one gramme to four grammes a day for adults. For children the tincture is preferable. M. Bilhaut cites ten successful cases.—*British Medical Journal*.—*Med. Record*.

#### Essential Paralysis in Children.

PROFESSOR PARVIN ordered for a child six years of age, suffering from essential paralysis, the inflammatory stage having subsided, faradism to the periphery, twice a day, and  $\frac{1}{8}$  grain of strychnine three times a day. Keep the skin active by bathing, etc.—*Col. and Clin. Record*.

#### Treatment of Cholera Infantum.

EMPTY the stomach and bowels of fermenting masses by castor oil, or better still, calomel (grs. j, vj.). As anti-fermentatives, calomel, bismuth, alcohol creosote, salicylate of sodium, and resorcin are all valuable, but resorcin in solution (suspension), iv-x grains a day is preferred. The same may be used as a constituent with bismuth, chalk, opium powders. If the child is seen early, enforce abstinence from food for from six to ten hours, followed by the use of pounded ice, with or without whiskey, ice tied in a rag and put in the child's mouth, cold tea, lime water, toast water, and rice water. To meet anti-ferment-

ative indications the following may be used :

℞. Bismuth, 3 i; aquæ cinnam.,  $\bar{z}$  ij; tinct. opii., gtts. ij; M. Sig. Teaspoonful every one or two hours.

℞. Sodii benzoatis, 3 i; aquæ, 3 xiv; syrupi, 3 ij. M. Sig. Teaspoonful every two hours.

℞. Acid carbol. pur., gtt. ij. ad. vi; mucilaginis,  $\bar{z}$  ij. M. Sig. Teaspoonful every two hours.

℞. Argenti nitratis, gr.  $\frac{1}{2}$ ; aquæ destil.,  $\bar{z}$  ij. M. Sig. Teaspoonful every two hours.

℞. Resorcin, gr. ij; aquæ cinnamoni,  $\bar{z}$  ij; tinct. opii., ℥ij. M. Sig. Teaspoonful every two hours.

To neutralize acids in the stomach, give carbonate or phosphate of calcium (grs. j-ij) every one or two hours. Bismuth (grs. ss-ij, every one to two hours) may also be used. If necessary, combine with bismuth opium, Dover's powder (grs.  $\frac{1}{10}$ ,  $\frac{1}{5}$ , or  $\frac{1}{3}$  every one, two, or four hours). Flavoring syrups ferment easily, and should be avoided. Substitute glycerine, and beware also of magnesium and sodium. Dover's powder (gr.  $\frac{1}{10}$  to  $\frac{1}{3}$  every two or three hours) may be used as a sedative, with or without resorcin, in connection with bismuth and prepared chalk. In chronic cases, where the stomach is affected, avoid astringents, such as lead, tannin, gallic acid, alum, etc. Prefer nitrate of silver (gr.  $\frac{50}{100}$  to  $\frac{30}{100}$  in two drams of distilled water—dark bottle—every two hours). Use creosote water, and add alcohol (good whiskey) to the food, but never allow it raw. Camphor, rubbed off with glycerine, and suspended in mucilage (gr.  $\frac{1}{4}$ -ij. every 1 or 2 hours), may (must) follow anti-fermentative measures.

In case of collapse, a mustard bath is often efficacious. As stimulants, try as follows : ℞. Camphoræ, gr.  $\frac{1}{4}$ ; sacchar., gr. vi. M. Sig. Every three hours.



R. Camphoræ, gr.  $\frac{1}{4}$ ; pulv. doveri, gr. i-10. M. Sig. Every two hours.

R. Camphoræ, gr. i; bismuth, gr. vi. M. Sig. Every two hours.

Or it may be necessary, in case of vomiting, to give the camphor in ether, or with caffeine and ether hypodermically. Siberian musk is also recommended (gr. i-j). Suspended in mucilage, every fifteen or thirty minutes, until six or twelve grains have been taken. Hot water, with some alcohol, and one or two drops of tincture of opium may be injected into the bowels through a long, flexible tube.

For pain, apply warm water to the abdomen; also in cases of anæmic children. Water (60° to 70°) may be applied to the abdomen in case of a high temperature. Try injections of water (100° F.) and gum-arabic, or flaxseed. Encourage frequent bathing; alcohol and water may be used (1 to 5) for bathing purposes. Secure ventilation night and day; coolness, and, if possible, a complete change of air. Keep the feet warm, and direct the diet carefully. Mothers may be supplied with diet cards, with all articles not allowed crossed off. A card without crosses is as follows:

Barley water, oatmeal water, white of egg in water, gum-arabic in water, lime water, whiskey in water, bread crust boiled in water and allowed to cool, milk, with any of the above waters, meat broth, with any of the above waters, cold tea.

ad cases no milk is allowed at all. Feed five ounces of barley water,  $\frac{1}{2}$  dram of brandy or whiskey, the white of an egg, salt, and sugar; give one teaspoonful every five or fifteen minutes, according to age and case.

For vomiting and diarrhea, enforce abstinence for from six to ten hours, and then give teaspoon doses of a mucil-

laginous or farinaceous decoction. Use no beef tea until convalescence; then combine it with barley water. Where the discharges are copious and frequent, with inspissations of blood and thrombosis threatened, fluids must be introduced into the system according to individual judgment. A dyspeptic diarrhea may sometimes be prevented from developing into cholera infantum by the use of oatmeal, barley, toast water, and lime water, following the abstinence before enjoined. Nursing babies come under this same treatment. Cleanse the bowels with castor oil, magnesia cum rheo, or calomel, gr.  $\frac{1}{2}$ , sugar, gr. v, pro dosi, every hour, until five are taken. Give these powders dry. If the tongue is coated twenty-four hours after, give the following:

R. Acid muriat. dil., gtt. xl; aquæ,  $\bar{\zeta}$  ijss; pepsini pur.,  $\bar{\zeta}$  ss; syrapi simp.,  $\bar{\zeta}$  iv. M. Sig. Teaspoonful every hour.

R. Acid muriat. dil.,  $\bar{\zeta}$  ss; aquæ,  $\bar{\zeta}$  xiv; tincture opii., gtt. ij; syrapi simp.,  $\bar{\zeta}$  ij. M. Sig. Teaspoonful every two hours.

In case of violent vomiting, the following is recommended: R. Tr. iodin., gtt. xv; aquæ menthæ,  $\bar{\zeta}$  i. M. Sig. 15  $\mathfrak{M}$ . every hour.

In re-convalescence, where astringents are required, use tannic acid, acetate of lead, with or without opium. To avoid a relapse, be cautious as to diet. In most cases, milk and oatmeal, or barley gruel, in proportions adapted to the age, with a pinch of salt and some sugar (lime water if necessary), will be suitable for a child up to twelve months. —*Medical Reporter*.

#### Treatment of the Complications of Measles Especially of the Eye and Ear.

It is the complications of measles rather than the disease itself which make it a fatal disease. Of these broncho-

pneumonia and diphtheria are the most common in children under two years of age, and they almost always induce a fatal result.

Of the ear affections which complicate measles, otitis media is of very common occurrence, being present most frequently during convalescence. It is due to the extension of the morbid condition upon the mucous membrane of the pharynx and nasal fossæ by way of the Eustachian tubes. The symptoms of the otitis of rubeola differ according as the general condition of the child is or is not intact. There may be severe pain, fever of greater or less intensity, delirium, and a general *ensemble* of symptoms suggestive of the invasion of a cerebral or pulmonary disease; or the general condition may be unaffected, and the first indication of involvement of the ears be the discharge of pus from the auditory meatus. An intermediate type is mentioned by Hermet, in which the local symptoms are preceded or accompanied by an elevation of temperature of short duration without any other trouble. The rupture of the drum-membrane usually occurs at the top of its lower segment, is not usually extensive, and quickly cicatrizes. In some cases the foregoing simple condition does not obtain, but there is extension of the suppuration to the mastoid cells, caries of the petrous portion of the bone, and paralysis of the facial nerve. The process may extend to the meninges, and the child die from meningo-encephalitis. In other cases the ossicles may be destroyed with permanent deafness as a result, though the general condition may not be affected. In very young children deaf-mutism may be the outcome of these ear troubles, hence the great importance of the complication.

The treatment should consist of irri-

gation of the ear from two to six times daily, according to the extent of the suppuration, with warm carbolized or borated water, the stream being projected with great gentleness. Then, the ear having been carefully dried, a fine astringent powder, either alum, borax, or iodoform, should be insufflated.

Complications of the eyes are not apt to be of so serious a character as those of the ear, the lids, corneæ, and conjunctivæ alone being implicated. The inflammations are rarely very deep in extent, phlyctenular conjunctivitis and kerato-conjunctivitis being the forms of disease most commonly seen. Serious results to the cornea from ulceration are not frequent. The ocular complications may occur during the stage of eruption, but they are seen more frequently during convalescence. For acute blepharitis with swelling of the lids, compresses moistened in a warm solution of boric acid should be used permanently, while morning and evening one should apply to the borders of the lids a small portion of ointment containing vaseline, 10 grammes; hydr. ox. flav., .50 gramme.

If the blepharitis should develop into chronic eczema, warm poultices, made antiseptic with boric acid, should be used, and for an application, vaseline, 5 grammes; zinci ox., .50 gramme.

Should the conjunctivitis be simple, cold applications of a solution of boric acid may be used, but if accompanied with keratitis the application should be warm. The conjunctivitis may be so purulent as to suggest the blennorrhagic form of the disease. In such cases the mild solution of nitrate of silver (two to five per cent.) should be used the same as if that were the condition. Should keratitis predominate, the yellow precipitate ointment should be applied. Should perforation of the cornea appear

imminent, the following collyrium may be used: Aq. destil., 10 grammes; eserine salicyl., .05 gramme.—*Ibid.*

#### **Essence of Turpentine in the Treatment of Painful Intestinal Affections in Children.**

THE author considers this drug eminently soothing to an irritated and inflamed intestinal mucous membrane. It tends to heal ulcerated surfaces, and is also antiseptic and disinfectant. It is also useful to excite increased salivary, gastric, pancreatic, and intestinal secretions. In the author's experience it was also useful in relieving the pain accompanying diarrhea or constipation; also the vomiting and emaciation which so often attend enteritis in children brought up by the bottle. It is also indicated in dysentery and in the infantile cholera produced in connection with high temperatures, when the intestine is evidently irritated by the lactic, acetic, and butyric acids which have been generated within it. For a child one year of age the dose is two drops, and this may be repeated every two or three hours, according to circumstances.—*Journal de Médecine.*—*Ibid.*

### **OBSTETRICS.**

#### **A New Way of Dressing the Cord.**

DR. CAMP says he was never satisfied with the way he was taught to cut, tie and dress the cord, and gives the details (*N. E. Med. Monthly*) of a new method.

As soon as the child is born, I lay it between the woman's legs, as far away from her body as the cord will allow without stretching it. As soon as the pulsations in the cord cease, not sooner, unless an unforeseen accident necessitates it, I tie the cord about two inches from the navel with coarse or heavy surgeon's silk, and again an inch further away. I then cut the cord with a scis-

sors curved on the flat between the two ligatures, and hand the new-born infant to the nurse to be wrapped up in flannel.

The nurse is now ordered to anoint the infant with lard, and then to wash it. By the time she gets through with this process, I can safely leave the woman. I now wash off the navel end of the placental cord with equal parts of Listerine and water, (which is one of the very best antiseptics and deodorizers), and glycerine, retie it within an inch of the navel with a ligature of No. 13 iron-dyed surgeon's silk, and cut off the superfluous part of the cord containing the first ligature. Then I wrap the cord in borated absorbent cotton, and apply the belly-band in the usual way. The band must be reapplied occasionally, but the cord is not touched again until the sixth or seventh day, when, if it does not come off easily, it is snipped off by the scissors. If this article will induce the reader to try this method in one case, he will not go back to burnt muslin, etc.—*Mass. Medical Journal.*

#### **Laceration of the Perineum in Childbirth Avoidable.**

DR. SELWYN A. RUSSELL (*Medical Annals*):

The vexed question of perineal preservation is one of unceasing interest to the medical man, for the reason that by all, or nearly all, the methods now generally employed to prevent laceration of this structure, laceration too often takes place.

It has been said that "he who preserves from rupture a perineum which is in peril, shows more skill than he who successfully repairs a perineum which has been ruptured."

I have not time to describe, nor have you patience to hear, of the diverse methods used by one and another to

prevent rupture. Writers on the subject may be classified into six groups, and their plans are as follows :

1. Retardation of the head to allow time and repeated pressure to distend the perineum. (Goodell, Sawyer, Duncan, and others.)

2. Methods which aim at protection by applying direct to the perineum some artificial means of support. (Barnes, Playfair, Ramsbotham, Gairdner, Garriques, and others.)

3. Methods which combine the two, in that they retard the head at the same time that there is afforded direct support to the perineum. (Parvin, Schroeder Luck, Hodge, and others.)

4. There are some who, following neither of the above methods, yet try to accomplish the same result by means of forcible dilatation of the vulvar and vaginal outlets with the finger, at the same time practicing a process of enucleation. (Ritgen, Ahlfeld, Olshausen, Smellie.)

5. Episiotomy ; probably not advocated by any one to the entire exclusion of all other methods, and chiefly used in cases of impending rupture. This practice has advocates in Baker, Tyler Smith, Cazeaux, Simpson, Luck, and others.

6. The last, and least in number, includes such as abstain from any interference, and let the perineum religiously alone. They say that interference may not only do no good, but may do actual harm. (Leishman and Hewitt.)

It is plain that by far the greater number believe in some method or other to preserve the perineum, and methods which combine the retardation of the head, and therefore stretching of the perineum, meet with most favor.

Now the object of my remarks is to describe how this retardation is best accomplished, also how to perform episiotomy in cases of necessity.

In a contribution to the *Medical Record*, I described the method I employ to prevent perineal laceration :

The woman should be delivered on the left side. As she lies obliquely across the bed with the hips on the right edge, the nurse supporting the raised right knee, the physician sits behind, his left hand between the thighs and covering the vulva ; the right, with a towel intervening, covers the perineum, though never hiding it from view. As the head is pushed down by the uterine contractions and the voluntary efforts of the woman, it is held from advancing too far, if necessary, by clasping the hands firmly against it. When the head has advanced far enough, and the parts are sufficiently dilated, it is slowly and carefully shelled out between the pains, the woman assisting, if necessary, by voluntary expulsive efforts. Care should then be taken that the shoulders do not cause the injury the head has been prevented from producing.

In the statistics gathered by Marston, and published in the *American Journal of Obstetrics*, it appears that ruptures occur in from 4 to 22 per cent. of cases, as seen from Montford, Hildebrandt, Hecker, Preites, Spiegelberg. Lusk, after Olshausen, says 15 per cent. Whereas, with Marston himself, at the Vienna clinic, in 957 cases of primiparæ, but two cases of posterior laceration are recorded as occurring after episiotomy. In these 957 cases, there were 22 spontaneous ruptures ( $\frac{1}{4}$  of 1 per cent.) ; there were 38 episiotomies made, and but 2 ruptures in spite of incision.

Professor Credé gives an analysis of 1,000 cases of primiparæ as follows :

Lateral incisions . . . . .	259, or 26 per cent.
Spontaneous ruptures . . . . .	104, or 10 " "
Ruptures in spite of incision, 29, or 2.9	" "

From this it is seen that but 29 ruptures took place in 259 incisions, thus



saving 230 perineums from otherwise certain laceration.

Credé found, further, that laceration diminished in frequency in proportion to the frequency of lateral incisions. Of five assistants, the one who resorted oftenest to episiotomy had the fewest ruptures :

10 per cent.	.....	21 per cent.
20 "	.....	12 "
26 "	.....	11 "
28 "	.....	7.4 "
32 "	.....	7.2 "

Of all these cases, not one of total rupture is recorded.

I think it is safe to say, leaving out of consideration the cases in which ruptures due to malformations, cicatrices, unusual size of head, etc., that the tearing of the parts in question is almost always not only avoidable, but its occurrence is frequently a serious reflection on the care of the medical attendant.

In the wards of Braun and Spaeth, Vienna, also in practice, I have seen many perineums preserved, and have saved many myself, and I feel able, therefore, from both observation and experience, to bear witness to the usefulness of efforts aimed at preservation. The more simple measures failing, recourse should be had to episiotomy—that is, incising the margin of the vulva.

#### **Influence of Medicines taken by Nursing Women upon their Infants.**

If salicylate of sodium be taken by the nurse in doses of one to three grammes, the author has found that it may be recovered in the urine of the child. The same is true in respect of iodide of potassium.

Ferrocyanide of potash given in doses of one or two grammes for three doses was not recovered from the urine of the infant.

If iodoform is given to the nurse by external application, will be traced three

or four days afterwards in the urine of the infant, as idoine. In none of the cases in which these experiments were tried did any harm result to the infant. Elimination of mercury by means of the milk rarely occurs.

If citric acid in a one to ninety solution be given for four days, the quantity of the solution not exceeding three grammes, and if as much as seven and a half grammes, of a solution of hydrochloric acid, five to one hundred and eighty, be administered to a nursing woman in the course of four days, the author's experiments show that the milk undergoes no perceptible change, and the child will experience no harm. The author concludes that acid food, salads, for example, need not be withheld from nursing women, at least so far as their acidity is concerned.

Tincture of opium given to nursing women in doses of twenty-five drops, resulted in neither drowsiness nor constipation on the part of the infant. Morphine given hypodermically in doses of two to eight milligrammes resulted very seldom in disadvantage to the infant, chloral produced bad effects somewhat more frequently, especially if the hypodermic injection were given a very short time before the child was put to the breast. Atropine given in doses of one to five milligrammes was in no case followed by dilatation of the child's pupils. The author believes that fever in the mother is not sufficient cause for weaning her child, but the child should be weaned if the mother has erysipelas or scarlatina.—*Journal de Médecine.*

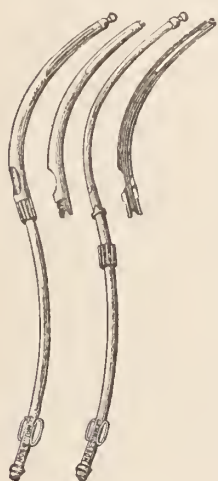
#### **Sore Nipples.**

COMPOUND tincture of benzoin has, in our hands, proved very efficacious in this painful and troublesome malady. It should be applied after carefully washing off the nipples with warm water.

## DISEASES OF WOMEN.

## An Aseptic Two-Way Catheter.

DR. H. A. KELLY exhibited before the Obstetrical Society of Philadelphia, an antiseptic two-way catheter, which will conduct and discharge water and solutions with the utmost freedom and at the same time allow of perfect and ready cleansing after use. In the light of the antiseptic surgery of to-day the use of such two-way catheters as were commonly found in the surgeon's bag a



few years ago, is in the highest degree dangerous, owing to the necessarily painfully tedious process of cleansing, and the possibility of never being able to assure ourselves that they are clean. One of the best ever devised for the use of the gynecologist is Bozeman's. This has been modified by Fritsch and

Olshausen in such a way that the delivery pipe and discharge pipe are two separate pieces, so made that the delivery pipe enters the larger discharge pipe, and is held in place by a cap, which is screwed down on it while in use. This will be understood better in examining my modification. The objection to this still held, that although easier to clean than any previous forms, it was still difficult and impossible to assure one's self that it was clean. I have now added my own modification to this instrument, making it now perfect in its utility and answering all antiseptic requirements.

The syringe as constructed by me consists of three parts. First, the de-

livery tube, which conducts the stream from the hose connected with the reservoir into the uterus. This tube is well curved, and at its entrance is furnished with a knob to hold the hose better. Its extremity ends in a button, with a series of holes around and a little below the outer margin, in the form of a rose, so placed that the stream is thrown out on all sides and directed a little backwards. The remaining two pieces are the two lateral halves of the exit pipe, which is attached very simply by entering each end in the shallow collar under this rose, bringing them together around the inlet pipe and screwing the nut down on the thread on their upper end. Each side has a fenestra in it, near the point, and is scooped out near its upper end, so that when the two are fitted together there is a good sized hole here.

When in use water flies with force from the holes at the end, washes with it *débris* and fluid, which enter at once the large fenestræ on the sides, are washed down and out of this large hole into the receptacle. When out of use the cap is unscrewed, the halves fall apart, and every part which has come in contact with infection is at once exposed and readily cleaned. The interior ought to be as highly polished as the exterior.

The accompanying cut shows the construction of the two-way catheter described by Dr. Kelly.

## Treatment of Obstinate Cases of Flexions of the Uterus.

In a paper read before the British Gynecological Society, Dr. C. H. S. ROUTH (*Medical Press*), came to the following conclusions on the treatment of flexions :

1. When ordinary Hodge pessaries are used : (a) No pessaries whatever

should be used, until such time as all inflammatory or congestive symptoms have been removed, and this is a *sine quâ non* in all cases when the fundus uteri is tender or inflamed. (b) Particular care should be taken to insure an exact fit of such pessary to the affected person to prevent pressure on the fundus or bent angle of the flexed uterus. It should be removed for cleansing purposes, etc., every three or four months for a few days, but again replaced,—kept in for a year. A shorter period could never, or very rarely, cure.

2. In regard to intra-uterine stems : (a) Whenever the canal is narrowed or obstructed at the point of flexion, an intra-uterine stem is essential. In no case, however, should it be allowed to pass against or even touch the fundus. (b) Where the flexion is not very marked the india-rubber stem may be used. If the flexion be great, it is best to support it by a buckle pessary, and an internal stem again within it. In such cases, however, the solid diverging stem or buckle pessary are preferable. (c) If the adhesions which force the uterus in a fixed position be strong, the india-rubber steel spring intra-uterine stem should be first tried. If the adhesions be too strong, oöphorraphy affords the only chance of cure. (d) Intra-uterine stems, whether with or without buckle pessary, should be kept in for six or eight months. (e) In cases of great subinvolution of the uterus, the stem should be thicker than in ordinary cases, and especially so if the flexion be very marked. (f) Neither suspension of the uterus nor shortening of the round ligaments should be practiced in cases of great uterine enlargements or prolapse. The same objections hold in cases of firm and extensive adhesions, and great debility and relaxation of the

ligaments. (g) In all cases with marked prolapse the buckle pessary is the safest. (h) If, after full trial of instruments, they either fail or produce great pain and inflammation, then Dr. Alexander's operation may be tried, and failing that, Dr. Heywood Smith's or Dr. Imlach's, except only in the exceptional cases before mentioned.

#### Material for Pessaries.

DR. ERNEST FRANKEL, of Breslau, speaks of the great value, in the treatment of retroflexion of the uterus, of Thomas's pessary. He describes the drawbacks of hard rubber as a material for their construction, and a plan which was carried out for him by Hartle, of Breslau, of making them of glass. The only objection to this material is that it is heavy, and Fränkel suggests that the pessaries might be made hollow, so as to be lighter, without impairing their strength.

He also strongly commends the use of pessaries made of copper-wire, covered with celluloid, as being less liable to incrustation, less liable to change shape when exposed for a long time to the temperature of the body, and demanding less skill to adapt their shape to the requirements of individual cases.—*Medical and Surgical Reporter*.

#### Pruritus Vulvæ Following Leucorrhœa.

VERRIER recommends the following solution : Carbolic acid, 9 minims; acetate of morphine, 7 grains; dilute hydrocyanic acid, 50 minims; glycerine, 3 drams, water; 4½ ounces.

After the parts have been washed and allowed to dry, they should be dusted with powdered starch. If the pruritus still persists, insert a cotton tampon, wet with the above solution, between the lips of the vulva, and secure it with a bandage.—*Union Médicale du Canada*.

**Bryonia Dioica in Uterine Hemorrhage.**

PROFESSOR PETRESCU, in the *Progrès Medical* recommends a wine of *Bryonia dioica* as far superior to ergotine in the treatment of metrorrhagia. Three hundred grains of the root are macerated for eight days in a quart of white wine. Dose, a tablespoonful every hour until the hemorrhage stops.

**Anæmia or Chlorosis of Girls.**

AT a meeting of the Medical Society of London, Sir ANDREW CLARK read a paper on this subject, which is published in the *Lancet*. The author stated that many years ago, when studying the effects produced upon the body by the undue retention of the excretions and of the products of their decomposition, he came to the conclusion that the anæmia or chlorosis of girls was brought about for the most part by fæcal poisoning; and his later experience has given increased probability to this view. The girl who is the subject of this anæmia, while often declaring herself perfectly well, looks extremely ill. She is plump, but pallid; her countenance has a wistful or sad expression; the face is so puffed that its finer lines are effaced. The eyes are large and prominent, the conjunctivæ are white and watery, the pupils dilated, and the eyelids swollen; the lips are full and of a pale purple color. In addition, it is found, on cross-examination, that she suffers from various nervous symptoms and has digestive disturbances, with inadequate or irregular discharges of fæces. The genital disorders of chlorosis may be summed up by saying that the menstrual period is usually regular; that the discharge is scanty, pale and otherwise altered; that sometimes there is amenorrhœa; that on rare occasions the menstrual flow becomes excessive and irregular; and that almost always there is a leucorrhœal

discharge. He further said that the condition was one which was not confined to any particular class of society; it occurred in the underfed and the overfed, in the rich and the poor alike. The alleged special causes which have been put forward with respect to the causation of anæmia by Virchow, Germain-Sée and others, are all inadequate to account for it. In speaking of his own opinion as to the cause of the disease, he said that girls at puberty began to think more about their personal appearance; they ceased to take the same active exercise as before; they pinched in their waists and developed a self-consciousness in all their acts which led to their being very shy about going to the closet. He quoted the researches on the subject of the formation of alkaloids in the intestines, and urged that everything pointed to a toxic absorption. In collateral proof of this assertion he instanced the almost invariable success which attended the administration of aperient mixtures, which unloaded the bowels and restored things to their normal condition. He discussed the dietetic and medicinal treatment of such cases in detail, and pointed out that aperients were even more essential than ferruginous preparations. In patients who had been treated without success for months a cure was rapidly effected if these principles were borne in mind. To maintain the cure it was of course essential to prevent the recurrence of the condition of things which had given rise to it.

The following is a prescription which he very commonly uses for this disorder:

℞. Ferri sulph., gr. xxiv; magnesiae sulph., ʒ vj; acid. sulph. arom., f ʒ j; tinct. zingiberis, f ʒ ij; inf. gent. co. *vel*, inf. quassiae, f ʒ viij. M. Sig.—One-sixth part twice daily, about eleven and six.



In the discussion which followed the reading of his paper, in answer to the objection that if fæcal accumulation caused this form of anæmia it ought to be as frequent in boys as in girls, Sir Andrew Clark said that it was not accumulation of fæces in the rectum which caused the disease, but the accumulation in the colon.—*Med. and Surg. Reporter.*

#### Management of Anterior and Posterior Displacements of the Uterus.

DR. HALLIDAY CROOM (Edinburgh), in opening the discussion on this subject before the Section in Obstetric Medicine, at the Dublin meeting of the British Medical Association, said that he quite realized the responsibility he incurred by endeavoring to lay down definite lines of treatment in such a vexed question as that of anterior and posterior displacements of the uterus. (*Lancet.*) He divided them into two great classes—(1) those occurring in nulliparous women; and (2) those occurring in parous women. In the first class he believed the displacements were entirely congenital, due either to non-development or deformity, and he strongly recommended that mechanical interference should, as a general rule, be avoided, both in anterior and posterior displacements. He believed that in the majority of cases they gave rise to no symptoms, and when symptoms of dysmenorrhœa or pelvic distress were present, concurrently with them these symptoms were due to some affection of the uterine annexa, for which mechanical treatment was utterly unavailing. He did not deny that in some exceptional cases mechanical treatment was necessary, but these cases were so rare as not to affect the general fact. With regard to parous women, the case, he thought, was distinctly different. In many the symptoms arising from ante-

rior displacements were due to some inflammatory process in or around the uterus, and the treatment should be directed to the removal of those inflammatory products, and not mechanically to the displacement of the uterus. With regard to posterior displacements in parous women, Dr. Croom thought that a distinction ought to be drawn. They, as a rule, were brought about mechanically, and, speaking generally, were the only forms of uterine displacement that required mechanical treatment. In the case of retroversion, if no adhesions were present, he believed that the uterus ought to be accurately replaced bimanually without the use of the sound, and retained in position by a Hodge pessary, or some other modification of that instrument. In retroflexion the Hodge pessary seemed to him inapplicable, and he believed that, as a rule, endeavors at replacement should be employed with care, and the uterus retained *in situ* with an ordinary ring pessary. In conclusion, he pointed out that there were some cases which required exceptional treatment, but in the main he advocated mechanical treatment for posterior flexions and versions only in parous women.—*Therapeutic Gazette.*

#### On the Use of the Vaginal Tampon in the Treatment of Certain Effects Following Pelvic Inflammations.

DR. THOMAS ADDIS EMMET (*N. Y. Medical Journal*):

I must confess that until recently I had been greatly prejudiced against the practice of packing the vagina for the removal of pelvic inflammations. I had seen a great deal of damage done in the practice of others, and the patients who may have been benefited had not then come under my observation. It seemed evident to me that too much was alleged for the method so long as no fixed

rule had been determined as to the condition for which the practice would be beneficial. But, notwithstanding my prejudice, I have endeavored to gain the needed information, and, as a result of my observation, I hope that I can now present a sufficient foundation upon which, with the aid of the experience gained by others, we may rest, for the future, the merits of this mode of treatment. I must, however, express my dissent from the reasons given by Dr. Talliaferro, and I do not consider his method of application the one likely to be followed by the most beneficial results. But, before entering upon a consideration of the subject proper, I must present, briefly, an outline of my course of study bearing upon pelvic inflammations in the female. It has extended over many years, and it is necessary to pass this in review to show that the deductions drawn by me, and to be presented hereafter, are consistent with my observation and experience.

As the first advocate for the use of hot water vaginal injections in the treatment of pelvic inflammations, I think I may maintain, without fear of being deemed egotistical, that their employment was a great advance. Yet, in common with others, I have long realized the fact that under certain conditions the use of hot injections is but palliative, and is occasionally inert. When properly employed, they seldom fail to soothe and quiet the nervous system, but occasionally it is found that no permanent benefit follows the long continued use of the agent. It was this failure which led me years ago to study closely the condition of the pelvic blood vessels in disease. In the course of my observations I attempted to inject, post mortem, the vessels in the female pelvis, but I labored under the disadvantage of knowing nothing of the

previous histories of the subjects operated upon. This difficulty I endeavored to meet by selecting several cases where the cervix had been lacerated, and I expected to find with this lesion a condition which in life had been accompanied at some time with more or less pelvic inflammation. I detected little or no change in the arteries, but was somewhat surprised to find that it was impossible to thoroughly inject the veins, as they seemed at some points to have lost all definite form, and the material employed for injection became easily extravasated.

In a paper presented by me at the last meeting of the American Gynecological Society, and which many of you now present will recall, I referred to some observations which I had made as to the result of prolapse of the uterus and of traction upon the pelvic blood vessels. I pointed out that, as the veins were without valves, their extremely tortuous courses were necessary both as a check upon the circulation and to overcome the action of gravity. I stated I had observed, when making traction upon the connective tissue about a vein in the living subject, that the diameter of the vessel would rapidly increase in proportion as its tortuous course was made a straight one. In this connection I showed that it was evident, as the uterus became prolapsed in the pelvis and the veins were consequently straightened out, that they became proportionately distended. The caliber of the arteries, on the contrary, was not affected by any degree of prolapse until it had become a partial procidentia. As the uterus began to escape from the vaginal outlet, for the first time the diameter of the arteries was influenced by the traction, and with the effect of lessening their caliber so as thus to greatly reduce the amount of blood circulating in the

pelvis. But, until the point of procidentia had been reached, the degree of prolapse acted as a source of irritation to proportionately increase the quantity of blood forced by them into the already over-distended veins. These became less and less able, as the degree of prolapse increased within the limit, to advance the current of blood, which would become nearly stagnant at certain points.

It will also be remembered that in this paper and in a previous one I stated as my opinion that what had been generally termed "thickenings in the broad ligaments" were, as a rule, but dilated and over-distended veins; that the veins, following their tortuous courses through the connective tissue of the pelvis, receive, in a state of health, a uniform support to their coats from the natural elasticity of the tissues surrounding them. Therefore the circulation through these vessels would, in a state of health, be so regulated from this uniform pressure that it would be impossible for the veins to become over-distended. When, however, an injury had been received from childbirth, or when a local peritonitis with adhesions had existed, so that the integrity of the pelvic fascia had become impaired, the needed elastic support from the connective tissue would be lost and the veins must become over-distended. This is the condition, from one or other cause, so frequently met with in practice, and for its relief I pointed out the principle that this varicose condition of the veins could only be corrected by such means as were fitted for "taking in the slack," as it were, of the relaxed fascia, and thus regaining the lost support to the vessels. This support might be obtained, in many instances, after injury, by repairing the floor of the pelvis and thus restoring the proper

degree of tension for the pelvic fascia and connective tissue. In other cases the aid of a pessary would accomplish the same end, when properly fitted. I believe its action to be a means for taking in this slack or overstretch, and that it gave the relief by bringing this about, and by lessening the degree of prolapse, more than by a change of version.

One more point remains to be considered. Whenever a local peritonitis occurs in the pelvis and adhesions form, the line must be shortened and in the opposite direction there must necessarily be a proportionate slacking up of the connective tissue. The inflammation from the peritoneum may not involve this tissue to any serious extent, but, in consequence of the adhesions, the natural elasticity of the neighboring tissue becomes thus impaired and rapid distension of the veins follows. Adhesions forming between the opposing surfaces of the inflamed peritoneum have the effect naturally of crowding the uterus lower in the pelvis and thus causing more or less of a prolapse. If, as is frequently the case, the inflammation is situated in Douglas's *cul-de-sac*, we should have, with the adhesion of opposite surfaces, a retroversion in addition to a prolapse of the uterus.

I have called attention elsewhere to the fact that when cellular tissue in different parts of the body has been once inflamed it seldom, if ever, regains its vitality. That particular tissue must either be absorbed, or it must break down into pus; it disappears, and the space, or cavity, which would otherwise remain is filled up through the natural or inherent elasticity of the neighboring tissues, or by adhesive inflammation. The cellular tissue situated between the folds of the broad ligament is essentially

isolated from the connective tissue in the other parts of the pelvis ; therefore if it is once destroyed it can not be supplied from elsewhere. But any inflammation of sufficient extent to destroy this tissue must involve the peritoneum covering it. Peritoneal adhesions form as a consequence, the ligament is flattened out by the traction so that the walls of the vagina and the tube on that side approximate, and a lateral version of the uterus to the injured side remains as a permanent deformity.

We have now reached a point in the consideration of the subject when the following query may be presented: Under what conditions are we likely to obtain the best results from the use of the hot water vaginal injections, and when might we expect a good result from the uniform pressure which will be exerted by properly tamponing the vagina? No other mode of treatment yet known can accomplish so much as is gained by the use of hot water vaginal injections in all acute pelvic inflammations. The hot water acts as a poultice in exciting contraction of the arterial capillaries. Its continued use can diminish the circulation in the parts with which it is brought in contact, as is done in the hands and arms of a washer-woman while in the exercise of her vocation. Nearly thirty years ago I recognized the fact that the reaction from a continued application of heat was contraction in the muscular coats of the arteries, and hence its application and value in lessening the supply of blood going to the seat of an acute inflammation.

The use of the hot water injections is invaluable in the treatment of all stages of inflammation involving the cellular or connective tissue of the pelvis, in lymphangitis, in phlebitis, and in the early stages of pelvic peri-

tonitis. On the other hand, the vaginal tampon in my experience has only been beneficial after all acute symptoms have subsided, If this one feature is not recognized as a cardinal point, the indiscriminate use of this means of treatment will always be attended by unsatisfactory results, and with much unnecessary suffering to the patient.

The only class of cases in the treatment of which I have derived any special benefit from the use of the vaginal tampon has been where I have supposed the blood vessels had degenerated into a varicose condition, and where this state of the veins has been brought about, as I have shown, from the effects of local peritonitis with adhesions, from the loss of the connective tissue, and from injury involving the fascia.

Let us now consider the use of the tampon in the condition I have described as being the one fitted for its action. I have laid down the rule that its use can accomplish no good but may do much harm, so long as any inflammatory symptoms can be detected. We must trust to the use of the thermometer to show the absence of an elevated temperature in the pelvis, and to the want of other symptoms indicative of existing inflammation. In the absence of other symptoms we must exclude to a great extent the presence of pain on pressure as an evidence of active inflammation, its chief value then being but an indication of the manner in which the tampon should be applied.

Where adhesions have formed and the natural elasticity of the tissues has been impaired, the introduction of the speculum, or pressure made with the finger at certain points, must give rise to more or less pain. Traction is thus made through the connective tissue on the peritoneum and along some shortened line of adhesion.



But we are all the more careful when pain does exist under these circumstances, through fear of setting up a fresh attack of peritonitis. The most important point that we have to consider is to ascertain, if possible, the *modus operandi* of the tampon, for only by the possession of this knowledge can we determine upon the fit subjects for its application. Experience certainly teaches that by the use of hot water vaginal injections contraction of the arteries is excited, and that these injections are most useful in active inflammations. By the same means we have ascertained that the tampon does positive harm when not indicated, acting as a source of irritation so long as any acute inflammation exists, and that it does not lessen the circulation through the arteries, as their coats are not sufficiently compressible.

We therefore can draw but one conclusion, and in doing so we reach the point that the tampon acts mechanically, by compressing the dilated veins and by lifting the uterus to its natural position in the pelvis, so that the circulation between the arteries and the veins may be equalized. If the floor of the pelvis has been injured in childbirth, one or both agents may have to be employed to prepare the woman for the needed surgical operation. And it is only by the proper execution of this operation that we can restore the fascia and connective tissue in the pelvis to a state of integrity, and thus indirectly give the necessary support to the vessels.

But we have a different condition to deal with in treating the effects of a local peritonitis. As soon as the adhesions have been separated by the steady pressure of the tampon the pelvic tissues begin to regain their tone. And as the prolapse is corrected by the use of the tampon, and the uterus is steadily main-

tained in its natural position, the smaller veins are able to regain their natural and tortuous course with the improved condition of the connective tissue. So far in the treatment of a case the use of the tampon is most satisfactory, but as we advance the progress becomes slower. We have at last reached the point where the permanency of our previous success in the treatment of the case must rest upon our being able to effect a radical change in the condition of the degenerated venous diverticula. But it is just in this condition where I believe we gain the chief advantage in the use of the vaginal tampon. We should not, however, be misled by expecting too much, and we must realize that we can only gain permanent good through use of the agent after a long and tedious application, which may extend over the course of months. Moreover, the patient must be, as a rule, favorably situated in a hospital for receiving the treatment, and the operator is only able to do full justice to the patient in proportion to his experience.

I am unable to understand how any thing is accomplished unless these diverticula are destroyed through the long, steady, and uniform pressure which is maintained by the tampon when properly applied. It is impossible to suppose that these degenerated vessels ever could regain their tone. A certain amount of shrinkage doubtless takes place after they have been for a long time kept from being over-distended. But the continued pressure exerted by the tampon is but the application of a principle which has been long employed in general surgery. It is reasonable to suppose therefore, that the contents of these vessels become gradually organized, more or less adhesive inflammation is excited by pressure, and the tract throughout is obliterated.

## DISEASES OF CHILDREN.

## Infant Feeding, Especially with Reference to Subjects with Infantile Eczema.

DR. L. DUNCAN BULKLEY, in the *Journal American Medical Association*: It is necessary to give both negative and positive instructions, to define clearly both what and how the child shall *not* eat and drink, and how the feeding shall be carried on—in many cases the former is even more important than the latter. It would hardly seem necessary to mention such a matter as regularity of feeding. But unless this is attended to, errors may occur.

Many nursing mothers are in the habit of taking large quantities of tea; others take beer, or chocolate, with the idea of aiding in the secretion of milk. All of these I believe to be more or less injurious to the nursing infant with eczema, and are forbidden. If properly taken, milk affords the best means from which the human milk can be secreted, and there are few who cannot take it with benefit, both to themselves and their nursing infants, if due care be exercised in its administration.

The first point which I emphasize is that the milk should never be taken at the meals, nor in connection with any other substance whatever, nor when the stomach contains any food, or remains of food. It is best taken pure and alone, as a drink, and preferably at the temperature of the body, never iced, when the stomach is empty, presumably about three hours after a light meal, and four hours or more after a more heavy meal. Thus, my constant direction is that nursing mothers should take milk, say about an hour before each meal, and then also during the night if awake, beginning not earlier than about 11 o'clock. A quart or two of milk can thus be taken with comparative ease, and its ef-

fects appear in the mother and child often in a very striking manner. If the milk seems to sour at all on the stomach I frequently have a few drops of liquor potassæ, 10 or 15, or a little bicarbonate of soda, added to each tumblerful.

The idea of giving the milk thus on an empty stomach is that it may enter the system, if possible, without passing through the process of curdling and digesting in the stomach. When given during the interval and after stomach digestion is finished, the supposition is that the alkaline milk, received into the stomach when this is slightly alkaline, as it is at this time, enters the absorbents at once and mingles with the blood current, as we know it can when injected into vein. It is to be remembered that under the microscope milk globules and those of chyle are hardly distinguishable, and as the blood current is alkaline there is no reason why milk taken in this manner, and entering the lacteals undigested, may not mingle at once with the mass of blood, as does the chyle and as does also the milk when administered in transfusion. The addition of an alkali renders this more easy and certain, and when the stomach and mouth seem acid, a little alkali taken in water, quarter of an hour before the milk, serves to counteract this acidity, and prevents the milk from becoming curdled by any remaining acid.

The reason of abstaining from food in connection with milk, is found in the fact that the gastric juice necessary for the digestion of even the smallest amount of substance other than the milk, would curdle the milk, thus requiring a complete digestion of the entire quantity.

The proof of the theory that there is some special mode in which milk acts when taken thus alone on an empty stomach, and with the assistance of an alkali when necessary, is found in the

clinical experience which has attended a large number of cases in whom this plan has been practiced. Many patients who before had been unable to take milk, because it excited in them the so-called "bilious" condition, find that they can take it not only with impunity in this way, but with the greatest benefit. Another proof is found in the feelings experienced shortly after thus drinking milk, which is often described as one of not only immediate refreshment, but even of exhilaration, which has been likened to that of taking liquor, and many patients, both nursing mothers and others, have repeatedly expressed to me their satisfaction at the success of what seemed to them at first a doubtful experiment.

In young infants with eczema, where the nourishment seems defective, the greatest gain may sometimes be had from the addition of the yolk of an egg to the dietary. This may be given once daily, either raw or lightly cooked, as poached or boiled, either alone or in connection with other food; the white of egg is not desirable, and should not be given. Cream also is often called for, and these will often be found to more than take the place of cod-liver oil, which, however, is likewise most serviceable in cases of strumous habit.

I have not mentioned the use of barley water in connection with the administration of milk because personally I am not in the habit of ordering it much, although it is recommended on high authority and is widely employed. In certain cases it acts well in the way of preventing the formation of too solid a curd, and undoubtedly the small amount of nutriment furnished by the barley may be of value. Gum arabic water will sometimes prove of service when added to milk, and possibly acts in the same manner.

I wish to call attention to the value of wheat products as an element in the nutrition of infants with eczema, as well as in those of older years. Even quite young infants will be benefited greatly by the addition of crushed wheat to do their dietary, prepared as follows: The wheat is well boiled, and then left to stand all night, and again boiled thoroughly in the morning, the second time. It is then put in a fine sieve and water added to it, and it is rubbed until most of it passes through, leaving the hard and husky parts behind. This may then be given in a fluid state, either mixed with water, sweetened and salted, or with milk; or it may be eaten as a mush. In this manner the nutrient portion of the wheat is dissolved by the repeated cooking, and the phosphates and gluten are extracted with the starch, all in a very assimilable form, and are separated from the harder, indigestible portions, which often pass undigested and may do harm. Wheat given in this way furnishes, I believe, about the most perfect nourishment for the growing child, and with milk supplies all that can be desired. It is slightly laxative, and I have seen many cases of constipation overcome by its use.

Coming to older children, that is those between 1 and 3 years of age, when the teeth are pretty well out, it is often most difficult to regulate the diet in such a way that it shall minister to health or recovery from sickness, and it will often require the greatest watchfulness on the part of the physician to prevent the little eczema patient from being made worse by dietary indiscretions. The cereals should be given in increasing proportion, preference being given to preparations of wheat, rather than oat meal, which will frequently be observed to increase an eruption. Bread made from whole wheat flour should be en-

couraged, eaten with plenty of butter, which improves these cases, especially if they are under an alkali medication. Meat juice may also be given in moderation, but care should be exercised that it is not taken in excess, as there is danger of over stimulation, and I have repeatedly seen bad results from excessive use of beef tea and animal food in these cases.

As the teeth are formed the diet must of course be more varied and more freedom must be given, and parents will often think children ill-nourished if they are not allowed a great variety, indeed if they do not take the food of adults. But the prodigious mortality from bowel troubles among children under 5 years of age reminds us that much knowledge is yet needed before those having the care of the young shall rightly attend to the diet. If life can be thus endangered, the same or other errors in lesser degree must affect the state of the child both in health and disease.

#### Incontinence of Urine in Children.

IN a paper on incontinence of urine in children, read before the Obstetrical Society of Boston, Dr. C. W. TOWNSEND stated that of 355 children, 179 boys and 176 girls, taken at random among the lower and middle classes, 77 or 21½ per cent. were found to be incontinent, the limit of normal incontinence being placed at three years. The normal infants were found to stop wetting their clothes under one and a half years of age. Among the points brought out by an analysis of the 77 incontinent cases were: that 42 were boys, 35 girls, that in 47 the incontinence was nocturnal only, in two diurnal only, and in 28 both nocturnal and diurnal. In 63 incontinence continued from infancy; in 14 it came on after primary incontinence of infancy had ceased.

In discussing treatment, the uselessness and evil of corporal punishment in the majority of cases was spoken of. In regard to the operation of circumcision and breaking up adhesions between the corona and glans, its usefulness was recognized and cases cited, but it was not regarded by any means as always curative, for other causes might be operative. The investigations of Parks, who found more or less adhesions in 80 per cent. of boys under 9 years were mentioned as showing that adhesions are far from being always a cause of the trouble. Where no other cause could be found other than an increased irritability of the bladder, the use of belladonna in full doses till physiological effects appear had generally been found to give satisfactory results.—*Boston Medical and Surgical Journal*.

#### Management of Children's Teeth.

PROFESSOR MILLER, of Berlin, in an article on the "Milk-Teeth," published in the *Therapeutische Monatschrift*, points out the evil effects of sugar and other substances which undergo fermentation changes. A child, he says, is constantly eating sugar and substances containing it, and though the particles of food are more apt to get between the teeth and to set up caries than in the case of grown persons, children never, or at least rarely, have their teeth cleaned. This is a process which he would insist upon, a very soft brush and a weak disinfecting dentifrice being employed for the purpose. He would have it done twice daily. Sweetmeats should, he thinks, be entirely prohibited, or their use very carefully supervised. Barley sugar he does not consider so injurious as chocolate and soft clammy sweets, for whereas these latter will break up, and particles of them may remain for hours between the teeth, such a substance as



barley sugar is readily soluble, and therefore it is soon carried away into the stomach with the saliva. It must be remembered, too, that starchy substances soon become converted into grape sugar. Professor Miller suggests that after a child has eaten the barley sugar allowed him its mouth should be washed out with water. When the teeth have become decayed they should at once be stopped, even in the case of children under three years of age. All children's teeth should be, he considers, regularly attended to from the very beginning. We fully concur with the recommendation of Dr. Miller that children's teeth ought to be cleaned, and that the fermentation of sugar is a potent exciting cause of caries, but we dissent from him as regards the prohibition entirely of sweetmeats. Sugar is a part of the natural food of children; there is a universal craving for sweets among the juveniles of all nationalities, and the percentage of those having a distaste is almost infinitesimal. If sweets are to be denied, to follow the argument to its logical conclusion, fruit ought to be prohibited, because it has been shown by Magitot, Tomes, and others, that citric and malic acid are quite as destructive to teeth as sugar fermentation. —*Lancet*.—*Therapeutic Gazette*.

#### Diabetes Mellitus in an Infant.

FEMALE, æt. twenty-one months. Had constant thirst during daytime and passed large amounts of urine, which, the mother said, was "sticky" and had sweet odor. During night thirst not so urgent. Slept well; appetite and digestion good; bowels regular; abdomen prominent; was losing flesh and strength rapidly. Sometimes was bright and playful, but generally inclined to lie in cradle greater part of day. Urine pale straw color: sp. gr. 1038.

Heat and nitric acid produced a slight flocculent deposit. Trommer's test showed large percentage of sugar. Patient grew worse rapidly and died comatose. Duration of disease not quite two months. Some months before disease set in child had several hard falls on back of head, from which she suffered severely.—*Medical News*.—*Arch. of Pediatrics*.

#### Acetonuria in Children.

BAGINSKY (*Arch. f. Kinderh.*):

The investigations of the author upon this subject are summarized as follows:

1. Acetone exists in the urine of healthy children under conditions which are perfectly normal, but in very small quantities.

2. It is found in abundance in the urine of children who are undergoing febrile processes, for example pneumonia or measles.

3. The quantity increases as the fever develops and diminishes as the latter declines.

4. The formation of acetone is probably due to the destruction of nitrogenous material in the organism, for acetonuria becomes more marked in dogs when they are fed with a diet rich in nitrogenous matter, and it may then be made to disappear by feeding them for some time upon carbo-hydrates.

5. The quantity of acetone in the urine is enormously increased during attacks of epileptiform spasms in children. It was not believed that this increase was due to treatment with chloral hydrate in certain cases which came under the author's observation.

6. Under the influence of a deficiency of acid in the system, if there is no fever, and the diet is non-nitrogenous, there will be no acetonuria. Interference with respiration in the course of a spasm

cannot be regarded, therefore, as a cause of acetonuria.

7. This acetonuria does not arise from processes of fermentation in the digestive canal, or, at least, the quantities of acetone which are developed in connection with lactic acid fermentation are very small.

8. Neither in the fæces nor in the contents of the stomach in dyspeptic children has the author been able to find acetone, with a single exception.

9. The presence of acetone cannot be considered the cause of eclamptic attacks in children, for in those forms of disease which usually precede convulsions, acetone is either not present in the urine, or is present only in very small quantities.

10. The conjecture that acetonuria bears a certain relation to rachitis has not been confirmed by clinical and experimental investigations. A dog which was fed for a long time with acetone did not develop rachitis.

11. Long continued administration of acetone to animals also failed to develop nephritis, though Albertoni and Pisenti have asserted that such a result would follow.

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## OBSTETRICS.

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### The Treatment of Retained Placenta.

In the *Practitioner*, Dr. LANE describes the method pursued at the Rotunda Maternity (Rotunda Hospital, Dublin), as follows: When the placenta is adherent I believe the proper treatment is to pass the hand or fingers into the uterus and detach it, although I have been informed that some continental obstetricians allow the placenta in such cases to remain for even a month after delivery (unless there is hemorrhage or

symptoms of septicæmia), especially in the cases where the patients have not come to their full time. I consider, however, that if the operator's hands be not perfectly aseptic, this is the most dangerous of all operations met with in midwifery practice, except the Cæsarean section. It has been recommended by some authorities to keep the fingers inside the membranes during the operation, but there are many cases met with where, owing to the friable nature of the placenta, necessitating the removal of small pieces at a time, this is impossible. Should there be any septic infection about the hand, and especially about the nails, the usual seat of such poison, I failed to see how such a patient can escape becoming infected; for it is analogous to vaccination, except that virulent poison is substituted for healthy lymph, and with unfortunately greater likelihood of its taking effect, owing to the prolonged contact. The uterus, except where it has been already douched out with the hope of getting the placenta away, as I have already mentioned, is always douched with antiseptic solution prior to introducing the hand. Although the left hand is recommended by many as being smaller and corresponding more with the pelvic curve, the right hand is the one generally used, for the patient being in the obstetrical position usual in this country, the fundus of the uterus can be better and more easily supported by the left hand (the operator standing at the patient's back). Nor can an assistant, no matter how experienced he may be, support the uterus so satisfactorily as the operator himself, who knows the exact part of the uterus requiring pressure so as to bring that particular part of the uterine wall nearer to the introduced hand, and who is able to remove it to some other part the moment required.

An anæsthetic, usually chloroform, is nearly always administered, in order that, if necessary, the hand may be passed a second time where doubt exists whether all the placental tissue has been detached; for if the patient be perfectly conscious of what is being done, the operator must be very resolute to be able to withstand her solicitation not to pass the hand a second time, and I consider that once the hand is introduced, the operation should be persevered in to entire completion. When satisfied on this point, the uterus should be again douched out with antiseptic solution.

#### On the Time Which Should Elapse Between the Operations of Version and Extraction.

It is a well known fact that with most obstetricians the operation of turning is followed immediately by extraction, notwithstanding the fact that such a course is opposed to theoretical considerations and to customary teaching. The consideration of this question is limited to operations following transverse presentations. The question has been recently brought up for discussion by Winter, in a paper in which he gave the histories of 310 cases of transverse presentation, taken from the records of the maternity of the Berlin University. His propositions with reference to this subject are, (1) one should never perform version until the os is sufficiently dilated to admit of extraction; (2) the best results are attainable for the child by extracting immediately after turning.

The author's experience leads him to accept the first proposition without reserve, the second is not recognized as entirely sound.

The manifest advantage of turning, after the os is sufficiently dilated for that purpose, the waters having drained

away, is found in the fact that a continuance of a faulty presentation, like the transverse, after the waters have been lost, threatens the child's life by interference with the placental circulation. This is a sufficient cause for apprehension without considering the possibility of *tetanus uteri*, and compression upon the umbilical cord. There are exceptional cases, it is true, in which several days may elapse between the discharge of the waters and the birth of the child, the child being born alive; but the author thinks that in all such cases the waters have not drained away from above the child, and that the placental surface, and consequently the circulation, is still protected. The fear of rupture of the uterus sometimes induces one to perform version prematurely; but it must be remembered that this is a rare accident, and usually happens after the os is fully dilated.

In regard to Winter's second proposition, he reports 236 cases of version after the os was sufficiently dilated, which were immediately followed by extraction, and in only five cases was there a fatal result. There were also 27 cases in which turning was performed before the os was well dilated, the cases being then left to nature, and in 13 of these the children were still-born. The author is quite unwilling to accept this statement as conclusive of the disadvantage of waiting for spontaneous birth after turning has been performed. He holds it as a first principle that nature's processes should not be interfered with as long as there is a probability that they will be efficient. He also thinks it probable that the 27 cases of Winter, of which 13 were fatal, would have resulted differently had turning not been performed until the os was well dilated. The results of operations of this character depend very much upon the manual dexterity of

the operator, and the degree of his knowledge respecting the processes at work in connection with the mechanism of labor. This enables us to understand why, in a recent report concerning obstetrical operations in the grand duchy of Nassau, there should be so high a mortality as 57 per cent. after the operation of turning, and also why, in Winter's statistics, there should be a mortality of only 2 per cent. from the same cause. In the first case the results were those of the general practitioner, good and bad; in the second, they were exclusively those of the trained and skilful hospital obstetrician. In the author's clinic at Königsberg 152 cases of transverse presentation were recorded during his and his predecessor's service. Turning was performed after the os was sufficiently dilated, and extraction followed after a sufficient interval. The mortality in these cases was 14 per cent. In 29 other cases there was no indication for further interference after turning had been performed, and they were consequently left to nature. All of the children were born alive in a quarter of an hour to an hour and a quarter, and none of the mothers suffered mishap. The author's position is, therefore, as follows:

1. With a transverse presentation one should perform podalic version only after the os is fully dilated, exceptional cases being excluded.

2. The fœtus should be extracted only when a particular indication for that operation exists. In the absence of the latter it will be found for the interest of both mother and child to leave the case to nature.—*World's Med. Jour.*

#### A Recipe for Sore Nipples.

DR. J. H. SCARFF, of Baltimore, writes: I enclose you a recipe that I have been using for a long time for sore nipples in nursing mothers. I cannot

report a single case of failure when it has been used as directed. I would like my professional brethren to know of it, not that I consider it a specific, but that it has done me service in many cases when other means had failed. The nipple should be cleaned with a little warm water, to which has been added a small amount of borax, before applying. ℞. Balsam Peru, 3 ss.; tr. arnicæ, 3 ss.; olei amygdalæ dulcis; aq. calcis., āā 3 ss.; M. Sig.—Shake well and apply to nipples with camel's hair brush.—*Med. Medical Journal.*

#### On the Uses and Dangers of Ergot in Obstetrics.

DR. J. W. HYDE (*Brooklyn Medical Journal*): According to the author ergot, administered prior to delivery, produces a frightful mortality among the infants. It is liable to produce rupture of the uterus, as well as of other maternal soft parts. It is improper treatment, in lingering labors, with inertia uteri, as the forceps are far safer to both mother and child.

Ergot is a more frequent cause of the retention of the placenta than all other causes. It adds much needless distress to already exhausted mothers, by the prolonged after-pains. The retained placenta is frequently the cause of other disasters, the manual or instrumental interference necessary to dislodge it often producing traumatism or sepsis, or both; and from these there may arise perimetritis, suppression of the lochia, suppression of the milk, and even puerperal insanity and embolism as indirect sequences. The same argument may apply to the retention of clots.

Ergot is a very potent factor in the production of subinvolution and displacements.



Ergot, according to the author, is never necessary. If there is no more than the usual moderate hemorrhage which ordinarily accompanies a delivery, the uterus will take care of itself. If there should be a sudden and alarming hemorrhage, the patient is already suffering from shock, therefore the use of ergot by the stomach would be useless; and if it was not immediately rejected, it would not be absorbed.

The hot water intrauterine douche is efficient and preferable for controlling the hemorrhage.

In dangerous cases of post-partum hemorrhage, the hypodermic injections of ergot may be used, as this would be of value as against the negative results of ergot by the stomach. Ergot has been condemned and abandoned by many of the largest maternities in Europe and this country.

#### Preparations of Extra-Uterine Pregnancies.

MR. LAWSON TAIT exhibited recently at Birmingham (*British Medical Journal*), a series of specimens of extra-uterine pregnancy in all stages of its development, from the earliest known case of tubal rupture, which apparently had occurred between the third and fourth week, up to a section of a cadaver at full term. The interest of these cases lay chiefly in the fact that they completely established the view as to the pathology of extra-uterine pregnancy which Mr. Tait had first published in 1873: that all extra-uterine pregnancies were due to the impregnation of the fertilized ovum on the denuded wall of the Fallopian tube; that the tube was distended up to its bursting point, which generally was from the tenth to the thirteenth week. The condition of the subsequent pregnancy depended entirely upon the point at which

that rupture took place. If the rupture was into the peritoneal cavity, then death took place from hemorrhage; and twelve of the specimens shown were illustrations of this. If, on the contrary, the rupture took place into the cavity of the broad ligament, the hemorrhage was slight, and the pregnancy might go on to full term. Many of these cases, however, did not go to the full term; the fœtus died, and was thrown off by suppuration through the bladder, rectum, or into the vagina, or ended in the formation of a lithopædion. A few well recognized examples of these are to be found in almost any museum. The minority of cases went on with the child living to full term, and could be operated upon. Mr. Tait had operated seven times under such circumstances. That the danger of rupture into the peritoneum is great was shown by the case of early rupture alluded to, in which the patient was well at two o'clock in the afternoon, and was dead from hemorrhage from a small point of rupture in the tube at nine o'clock at night. In occasional instances, if rupture took place into the abdominal cavity, the placenta was separated from the tube and obtained new attachments. As one example, he showed a preparation from a patient in Nottingham—to which town Mr. Tait was summoned to perform abdominal section on account of the condition of ruptured tubal pregnancy, which had been previously recognized. He opened the abdomen, removed the fœtus, the placenta, and stump of the tube, and tied the latter. As soon as this was done the brisk hemorrhage ceased, and a part of the placenta which had become implanted on the intestine at the back of the uterus was removed, and the sites of it smeared over with solid perchloride of iron. Patient made perfect recovery.

## DISEASES OF WOMEN.

## The Permeability of the Cervical Canal as Affected by Presence of Flexion of the Uterus.

DR. GRAILY HEWITT (*Annals of Gynæcology*):

The condition of the cervical canal and of the internal os uteri, as affected by flexion of the uterus, has been the subject of much dispute. On the one hand, it is argued that the permeability of the canal may be much interfered with by presence of flexion. By others, it is denied that any loss of permeability is sustained in such cases.

As a contribution to the solution of the question the following note is submitted:

The drawings here given represent the uterus in a case of acute ante-flexion.

The specimen illustrated is in University College Museum. The history of the case from which the specimen was taken is unknown. It is a case of acute ante-flexion of the uterus, and as such was depicted in my work on diseases of women some years ago. Since that time the specimen has attracted some attention from its being a



Fig. 1.

well marked one, and a median section has been made to show the uterine cavity. The section has, probably unintentionally, been made a little to the left of the middle line. In its present state the specimen was photographed for me under the kind direction of Dr.

1888.—No. 5 c.

Quarry Silcock. Fig. 1. represents the uterus and its aspect on (nearly) mesial section. The uterine cervical canal is here hardly visible at the centre and upper part of the cervix, owing to the closeness of apposition of the anterior and posterior walls, which closeness of apposition is due, as is manifest, to the

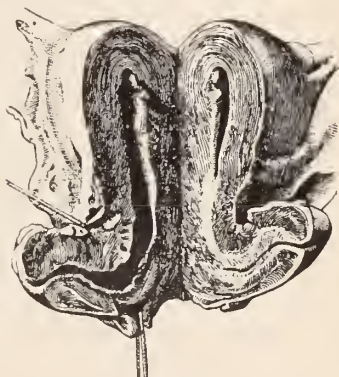


Fig. 2.

presence of the flexion. In Fig. 2 is shown another photograph of the same uterus, but the cervical canal on one side (the right) is opened out by the traction of two threads, one attached to the anterior, the other to the posterior, edge of the os uteri. It is thus made evident that the cervical canal is not by any means destroyed. The interesting fact becomes evident that the canal is unusually widened from side to side, at the same time that it is so narrowed from before backwards that it is hardly visible when the canal is in its untouched flexed state. The fact that the section has been made a little to the left of the mesial line must be borne in mind, for it thus happens that on the opened outside the section shows more than a half of the canal.

In this particular case the part of the uterine cervical canal most affected by the flexion is just below the internal os. The bending of the uterus produces a curvature of the canal which operates particularly on the canal for about three-

quarters of an inch. In this space the canal is excessively wide from side to side, but excessively narrow from before backwards, and it is manifest that the lateral widening, as well as the antero-posterior compression and narrowing, result from the shape of the uterus. The inference also follows that exaggeration of the degree of the bending of the uterus would have the effect of increasing the compression of the uterine canal.

The important question as to the effect of flexion in interfering with the permeability of the cervical canal appears to receive some elucidation from Martin's consideration of the specimen above depicted. It is evident enough on the one hand that the flexion almost destroyed the actual permeability of the cervical canal, while hardly at all affecting its virtual permeability. It is evident, further, that it is comparatively easy by straightening the uterine cervix to restore the patency to the canal. During life this could have been probably easily done by introducing the uterine sound. If the uterus was rigid, the sound would only be made to pass the narrowest canal, and with difficulty, when curved so as to resemble the curve of the bent uterus. But the difficulty would be obviously much less in introducing the sound if the uterus were not rigid.

In cases of the kind above depicted it is generally found that the uterus is low down in the vagina, and the point of the cervix, resting on the vaginal floor, becomes gradually bent upwards and forwards. In this position the flexion would be increased by straining, by standing, and like exertions. It would be expected under circumstances so favorable to the maintenance of the flexion that the canal compression would be increased.

The condition of the tissues of the cervical canal is a matter of great importance. In some cases the texture is unnaturally soft, and this softness, as I have elsewhere shown, is probably the first stage in the occurrence of flexion. When the soft condition of the cervix has lasted for a time, and the uterus becomes much flexed, a change may occur, the health may improve, and the cervix and uterus assume a more rigid and healthy state as regards tissue. But the form of the uterus remaining unchanged, and the flexion persisting, the condition is one in which the cervix does not readily unbend, and the distortion, as well as the virtual obstruction in the cervical canal, continue. This appears to have happened in the case above described.

It is not easy, looking at this specimen, to avoid the conclusion that escape of menstrual fluid and menstrual debris from the uterus must have been very difficult so long as the uterus remained fixed to its present degree.

#### A Self-Retaining Speculum.\*

IN the *New York Medical Record*, of July 2d, Dr. CLEMENT CLEVELAND has given a very complete and clear description of his speculum, whose merits we have carefully tested and believe to be the best self-retaining speculum in the market. The Doctor says:

This instrument is designed as a so-called self-retaining speculum. It consists of two Sims blades, each with a flange and separated by an interval of one inch and three-fourths. (Fig. 1.) These, though in parallel planes, looking at them from the side, will be seen to be at a slight angle to each other when held with the concavity of either toward the observer, the nearer blade

(Mr. W. F. Ford, of Hazzard, Hazzard & Co., will accept thanks for cuts.)

deflected to the right and the farther one to the left. The object of this will be explained further on.

At the point of each blade is a fenestra, and at the bend of the instrument, where the two blades come together, is

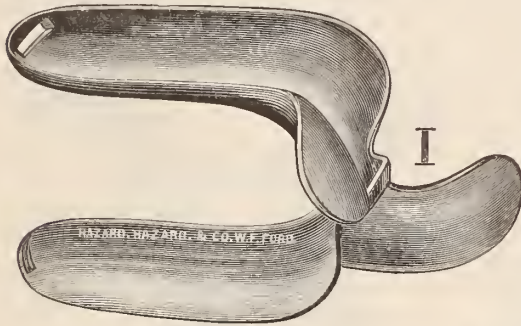


Fig. 1.

a narrow metal band. To complete the instrument there is a belt of webbed material to be applied about the waist. On this is looped, to admit of its being moved readily to any position upon the belt, a piece of the same material. To this is attached a long leather strap, with oblong perforations placed at intervals of half an inch. At the point where this strap and the piece of belting are joined there is a hook, the purpose of which will appear later. (See Fig. 2.)

To apply the instrument, the belt is first buckled by the patient, not tightly, about her waist and outside of her clothing, with the attached strap behind and the hook turned outward. She is then placed in the Sims' position. The operator selects the blade he thinks better suited to the case, and holding the instrument with the right hand, with the left he passes the leather strap through the fenestra at the point of the other blade and then under the metal band, leaving the strap quite loose between them. Then holding the specu-

lum still with the right hand, with the index finger extended along the concavity of the blade, it is introduced, care being taken to pass it back of the cervix. The instrument is then pushed firmly up against the perineum, the outer blade reaching a point just at the bend of the coccyx. I would say here, in parenthesis, that I have tried the instrument in over fifty women in my clinic at the Woman's Hospital, and find that the interval of one inch and three-fourths between the blades is enough, even in the stoutest women, to include all tissue between the posterior wall of the

vagina and the integument between the nates. In very thin women it will even be found advisable to place a folded towel under the external blade. The next step is to draw the leather strap tight, first through the fenestra and then under the metal band. The

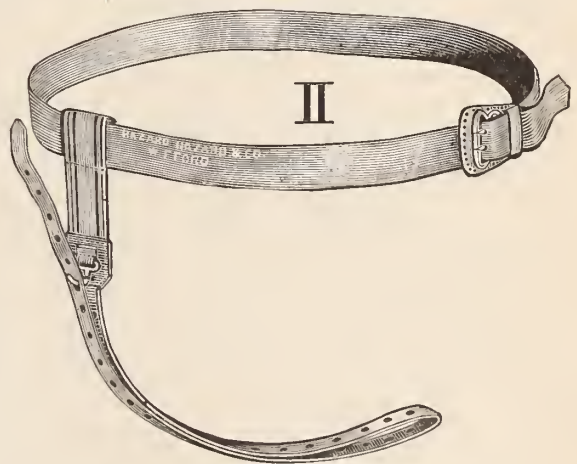


Fig. 2.

perineum is then retracted to the required degree by drawing the strap backward and securing it to the hook provided for the purpose and above described. By now using the vaginal depressor the cervix is brought at once into view.



When the belt is applied outside the dress it may be necessary to pass the strap through the fenestra at the end of the blade. In many cases the clothing, pushed back from the buttocks, is bunched up so high that it is necessary to have the tension exerted from the two points. If the tension were from the metal band alone the speculum would be more likely to pull out. When the belt is applied merely over the night dress, as in an operation, then it may be only necessary to pass the strap under the metal band, for then the tension is directly backward and the speculum cannot possibly pull out, as the strap presses firmly over the point of the blade. Still I should advise its always being passed through the fenestra. This I will explain below. To remove the speculum, detach the leather strap from the hook. The oblong perforations enable the operator to pull the strap off with the greatest ease. Then the speculum is withdrawn from the vagina and off of the strap at the same time.

I should here explain why the blades are placed at an angle to each other, as above described. The chief fault to be found with all self-retaining specula is that, to see at all satisfactorily, one has to stoop; while with the Sims speculum, held by a nurse, we look directly down upon the cervix as we sit before the patient. This is because the nurse does not pull directly backward upon the perineum, but a little upward, thereby tilting the point of the blade a little downward. This is precisely what is accomplished by giving the aforesaid angles to the blades in this new speculum, the strap pulling the outer blade directly backward, thus tilting the other just enough downward. (See Fig. 3.) If the strap is not passed through the fenestra, there is danger that the point of the blade under the strap may slip

upward, and especially so in thin women, thus deranging the position of the blade in the vagina.

The instrument seems to possess several advantages which it may be well to mention. In the first place, it consists of two blades of different size. It is simple, having no mechanism about it

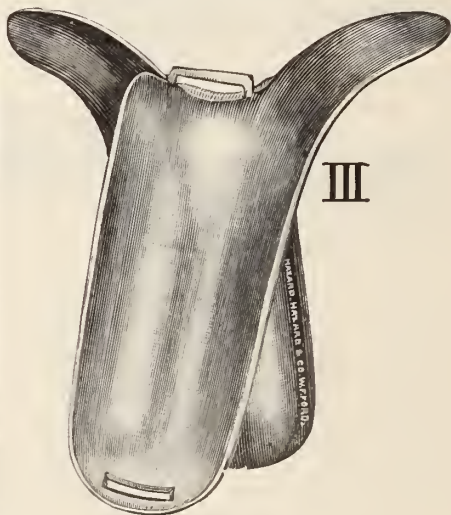


Fig. 3.

to get out of order. It can be easily kept clean, being entirely of metal and in one piece. It does the work at least as well as, and is cheaper than, any speculum yet devised for the purpose, costing, probably, not more than \$3, or \$3.50.

It is not claimed that it can take the place of a well trained nurse, but it certainly does better than an indifferent one. It has been used in several cervix operations at the Woman's Hospital, with entire satisfaction to the operator.

#### Description of a New Pad for General Surgical Purposes.

DR. HOWARD A. KELLY (*N. Y. Medical Journal*) :

In addition to the pads in constant use at the Kensington Hospital for women, described by me in the *American Jour-*

*nal of Obstetrics*—one for perineal and cervical operations, called the perineal pad, which is rectangular in shape, and the other a larger ovariectomy pad, with a narrower inflatable rim, and a third smaller pad for use upon the office table, when douching out the vagina and uterus—I have found a fourth form of very great service in general surgical work, which I shall call the general surgical pad. This is made with the rim inflatable around three-fourths of a circle, open on the remaining fourth, and draining, as in the others, on to an apron which conducts all fluids into the bucket on the floor. It has somewhat the shape of the ovariectomy pad, but is smaller, and has a wider opening on to the apron and a higher rim when inflated, answering better the purposes of general surgery; also well adapted for use in instrumental or even in ordinary confinements in small women in cases in which I have already used the ovariectomy pad. This general surgical pad has proved very serviceable to me on many occasions. I used it in an amputation of the arm at the shoulder when the operation was much prolonged by the great care necessary to remove large amounts of gangrenous *débris*, the sequelæ of an old suppurating bullet wound received during the late war. The operation was conducted under continuous irrigation in a private house, and the patient returned to bed without any soil of night-dress, table or floor, to the satisfaction of the operator and the comfort of the family. It has stood me in good stead in amputation of the forearm, and in a very difficult excision of the left half of the lower jaw for osteosarcoma, which had extended into the base of the skull, requiring a painfully careful dissection for its removal. The abundant use of water greatly facilitated the operation, and the satisfaction of the

operator was greatly enhanced by the fact that clothing and bedding were perfectly dry after its completion. The inflated rim, in operations about the head, is of material assistance in exposing the parts, serving as a sort of crotch over which the neck is stretched and by which it is supported. The measurements are: width of pad,  $19\frac{1}{2}$  inches; collapsed rim,  $3\frac{1}{2}$  inches; top of apron, 12 inches; bottom of apron, 8 inches; length of apron,  $25\frac{1}{2}$  inches.



A little flap attached at each free extremity of the rim, pointed toward the centre of the apron, serves to direct the stream of water away from the edge toward the centre down into the bucket.

In any operation about the buttocks, in using this or the perineal pad, one simple precaution should be observed; after the rim is blown up taut and the patient placed upon it, the screw should be turned, and air allowed to escape until the hand feels that the pad comfortably fits the back. The tensely inflated rim will strain the back and cause complaint. The accompanying sketch explains its general appearance.

#### Uterine Moles.

DR. EDWARD ROSENTHAL (*Journal American Medical Association*):

The most important of the internal organs of generation is the uterus. Its structure, anatomical character, physiological attributes and pathological changes have received the most attention from the zealous investigation not only of the obstetrician and gynecologist, but of the physiologist; and last, but

not least, the pathologist. The peculiar and special office that places it in the foremost rank of the anatomical structures in the woman is that of reproduction. After copulation, should fecundation take place, it then becomes the nest upon which the fecundated ovum rests, grows, matures, during that period which we term gestation, and at the expiration of this nearly uniform period it expels its contents: labor; and then resumes again its normal size and functions. The changes comprise a normal pregnancy, familiar to you all.

But this evening I will speak of the pathology of pregnancy; that is, of one of the functional derangements that occur in the pregnant woman, in which there may be an accidental lesion of ovum, spontaneous to the ovum, which always ends in death, and which we shall designate as Molar Pregnancies.

I must, however, preface my remarks with this observation: that whilst there are certain forms of moles termed the false or spurious moles, which have nothing at all to do with conception and which, for the proper understanding of our subject, must be spoken of and described, I may be open to your criticism by speaking of these affections under the term pregnancy; but as I before observed that the uterus expels its contents by what we term labor, and as labor is the ultimate result of pregnancy, the expulsion of a spurious mole has the same physiological action as that of the true mole, probably and properly termed a spurious pregnancy; at any rate, the women suffer pain quite equal, and a virgin will remain a virgin, a mole notwithstanding.

*Historical Sketch.*—Moles were known to the earliest writers. This can be attested by the fact that Hippocrates, Aristoteles and Galenus had been acquainted with them; speaking of them

and understanding them to be degenerated ova, which we to-day know as vesicular or fleshy moles. The Arabians gave a greater field to their designation of moles. They understood a mole to be not only the uterine contents, but also any tumor which might lay in the cavity or in its walls. Then again, at a later period, a difference was shown in moles, and then was spoken of true and false moles: the product of conception and not of conception.

Schenk v. Grafenberg, in 1565, was the first to describe the vesicular or hydatidiform mole (Blasenmole). The nature of this product was for the greatest period obscure. From the end of the last century even until a recent period this was looked upon as true vesicular worms. Whilst already Ruysch (who was still uncertain whether they were a pathological product of pregnancy), looked upon these cysts as an alteration of the villi. Velpeau and Johan Müller disputed that the vesicles were true cysts. The problem: from whence originated this growth? was unsatisfactorily answered by different theories. Gierse and Meckel seek the origion of the product to be a hypertrophy of the villi (zotten); whilst H. Müller the exochorion, and Mettenheimer the cellular tissue. Virchow finally cleared away the obscurity and brought light on this subject. He proved that vesicular or hydatidiform moles (described also by Hildebrandt as "fibrous myxomata" of the placenta) were a hyperplasia of the mucous membrane—the elementary bases of the tufts of the chorion (Chorionzotten). Schroeder quotes cases of "diffuse myxoma" of the placenta, by Breslau and Eberth, and Spaeth and Wedl.

*Moles and their Synonyms.*—Obstetricians divide moles into two great classes: *a*, the false; *b*, the true moles.

True moles are subdivided, as regards their physical character, into fleshy and vesicular or hydatidiform. The fleshy are again divided into fatty, carneous (steinmole), etc. Moles have been designated by different names : moon-calf (Mondkalb); devil's brood (Teufelsbrut); wind-egg (Windei); sun child (Sonnenkind); Neirenkind, Kielpopf, Missgeburt, etc. By the professional they are designated by their contents : blood mole (Blutmolen); water mole (Wassermolen); air moles (Luftmolen); hair mole (Haarmolen); cartilaginous mole (Flechtsenmolen); bone mole (Knochenmolen); and calcareous mole (Kalkmolen).

*A. Spurious Moles.*—I shall speak rather briefly of this portion of my paper. As an independent affection, existing uncomplicated, I believe it to be impossible. Its mention here is to open the way for the discussion of the more important variety.

Mauriceau believes that moles could not exist without impregnation; that it was always the offspring of intercourse. In his 105th aphorism (*Traité des Maladies des Femmes Grosses*) he says : "Les femmes n'engendrent jamais des moles, si elles n'ont usé du coït." This Alexander Milne, of Edinburgh, cannot subscribe to, believing that cases occur; nay, more, having met with them, where fleshy masses have been expelled from the uteri of women who certainly never had connection. If virgins expel such things, then, they are not to be impeached; to do so would be unjust.

Various substances, organized or unorganized, may be discharged from the uterus of the virgin; such substances as clots of blood, membranous shreds, or even whole membranes, as well as fibrinous materials. These may even have the shape of the uterine cavity,

and may come away naturally, or must be removed; and which have nothing whatever to do with fecundation, and are termed spurious moles.

This significance is of some importance from a medico-legal view, and the utmost care should be exercised in differentiating these false moles from true ones. Difficulty may arise when the discharged tissue is the membranes of membranous dysmenorrhœa, where this tissue may be mistaken for true decidua membranes. The circumstances attending each case should receive the earnest scrutiny of the attending physician. All circumstantial and direct evidence should be gathered: were there any previous attacks? note the absence of the signs or symptoms of pregnancy, and so on. Examine the discharged mass; should this happen to be complete, we may find the opening of the Fallopian tubes and that of the cervix, which is never observed in true decidua. The microscope, however, will determine the presence or absence of the fecundated ovum. Blood clots, polypi, and small fibroids or portions of large ones should not be difficult of recognition by naked eye or microscopic examination.

*B. True Moles.*—True moles are always the result of impregnation. The villi of the chorion may become distended with fluid collecting within them, causing them to swell and assume the form of rounded vesicles comparable to gooseberries or grapes, resembling hydatid vesicles, and on account of this analogy they were for a long time supposed to be true hydatids. Or an extravasation of blood may take place between the maternal and fetal structure of the fecundated ovum or into the tissue of the latter, producing a fleshy mole. The embryo may become mummified, or may speedily disappear



in the early stages, and then we meet only with the membranes or appendages.

Two chief varieties of true moles are at present recognized, namely: 1, the fleshy; and 2, the vesicular or hydatidiform mole.

#### A New Uterine Elevator.

DR. T. BYFORD presented before the Chicago Obstetrical Society recently, the instruments hereafter described, and said:

I have been in the habit, for a long time, of introducing an ordinary straight, hard rubber intra-uterine stem into the retroflexed uterus before replacing it, in order to stiffen or straighten it, and to serve as an indicator of the position of the fundus after it has ascended out of reach. Last summer a cutler showed me a uterine elevator, invented by Dr. Miller, of San Francisco, which consisted of a straight steel stem, fastened upon the end of a thimble, with the end in view of making the stem a continuation of the finger end. I was unable to use this one, because in bending my finger so as to push the cervix back in place my knuckle would catch against the posterior vaginal wall or pelvic floor. I therefore constructed this instrument. There are three stems: a jointed steel stem, like that upon the end of Emmet's elevator, and two copper ones of different sizes, slightly flexible. Any of these may be attached to a shovel shaped piece in which the finger end lies at right angles to the stem. The cervix may thus be pushed backward or sideways, and the fundus pried forward. With the finger thus against the end of the stem, and practically against the cervix, we can calculate the position of the fundus, of the amount of resistance to replacement, and avoid all violence and danger.—*Journal American Medical Association.*

#### A Deodorizing Injection for Uterine Cancer.

DUCHESNE (*Nouveaux Remèdes*) credits Chéron with this formula: White vinegar, 300 parts; tincture of eucalyptus, 45 parts; salicylic acid, 1 part; salicylate of sodium, 20 parts. From one to five tablespoonfuls, added to a quart of tepid water to be used daily for vaginal injections.—*N. Y. Med. Jour.*

#### Salicylate of Soda for Dysmenorrhœa.

DR. C. METTENHEIMER, of Schwerin, reports in the *Memorabilien*, a case of dysmenorrhœa which was greatly benefited by taking salicylate of soda during her menstrual period. The patient was a woman, thirty-eight years old, who had borne three children. She menstruated regularly, but the flow was scanty and accompanied with colic. She happened to have an attack of rheumatism at one of her periods, and Mettenheimer put her to bed, and gave her fifteen grains of salicylate of soda every hour. After she had taken four doses her rheumatic pains disappeared, at the same time her menstrual flow increased very much, but did not become free enough to excite any uneasiness. It also lasted a day longer than usual. It is not stated that the colic disappeared, although this seems to be implied in Dr. Mettenheimer's report.

#### Cocaine in Dilatation of the Cervix for Dysmenorrhœa.

DR. M. F. BIRDSONG, in a communication to *Daniel's Texas Medical Journal*, March, 1888, says that in a young married woman, 20 years old, who had menstruated first when 13 years old, he had occasion to dilate the cervix for painful menstruation. The cervix was long and slender, with pin hole os; nothing else abnormal was discovered, as she was opposed to taking chloroform, he proposed to use cocaine as a substi-

tute, to which she consented. He used the following solution :  $\mathcal{R}$ . Cocaine hydrochlorate, gr. x ; water,  $\mathfrak{M}$  x ; liquid vaseline, f  $\mathfrak{z}$  iv ; M.

Two slender whalebone probangs were wrapped with absorbent cotton, and the cotton saturated with the solution. One of them was introduced fully into the uterus and left *in situ*. Absorbent cotton was saturated with the solution and packed around the vaginal portion of the cervix and allowed to remain for fifteen minutes, when it was all removed and another application, as above, was used, and allowed to remain the same time, when it also was removed. The dilator was then introduced and dilatation began at once, and in a few seconds it was over. For fear he had not fully dilated the internal os, he closed the instrument and pressed it in further, and dilated again. All of this was done with but little pain to the patient. In about ten days she menstruated with but little pain, not more than is common for women, and is now pregnant and in fine health. A second case, in which lanoline was used for vaseline, with equally successful result, is also mentioned.—*Medical and Surgical Reporter*.

#### Atresia of the Vagina.

DR. WILLIAM GOODELL published in *The Polyclinic* a Clinical lecture delivered at the Hospital of the University of Pennsylvania :

This young girl was before you five weeks ago, at which time I stretched the vagina, which was in a rudimentary condition. I was in hopes that this would be sufficient, but I am informed that contraction has taken place. It will probably be necessary to have her stay in the hospital and insert into the vagina a foreign body, which we shall keep in until cicatrization takes place.

I wish to make a few remarks to-day with reference to atresia of the vagina. This was a congenital case, but the closure was not complete. There are cases in which there is congenital absence of the vagina. Under these circumstances the ovaries are, as a rule, also absent, there is absence of the pubic hair, the breasts are not developed, and there are other evidences of the infantile condition. There is another form of atresia, of which I have seen two or three instances in the last few years, and in which the trouble was due to the neglect to use the forceps. I have often told you that the forceps can be applied without fear, but that when the head is brought to the perineum, the forceps, as a rule, should be taken off. Vesico-vaginal fistula is, in the majority of cases, due to delay in the application of the forceps, the head being allowed to remain too long in one position. The result of the pressure is sloughing. The slough is sometimes so extensive as to result in the closure of the vagina. In one case I had the greatest difficulty in reaching the womb. I dissected with a finger in the rectum, and a sound in the bladder, in order to avoid injuring those organs, but, in spite of all, I opened Douglas's cul-de-sac. It is a curious fact that in some of the cases of injury to the neck of the womb and the base of the bladder there is a cessation of menstruation. Where menstruation does not cease it is usually easy to reach the cervix, for there is then a definite tumor which serves as a guide. In the three cases of this kind on which I have operated there was no menstruation at all. This, then, is a form of atresia resulting from neglect to use the forceps, or delay in perforation of the head in cases where delivery with the forceps cannot be accomplished.

There is another form of atresia which you will occasionally see in young children. A mother will bring her child with the statement that the vagina is closed, and on examination it will be found that the nymphæ are united. In the majority of cases this can be easily corrected by separating the parts with an ordinary probe.

In those cases where there is a congenital absence of the vagina, and where an attempt is made to form a vagina, there is a great tendency for contraction to take place, as has occurred in the present instance. One way to avoid this is to introduce the Hodge pessary, and, on the whole, this is the best plan. There is, however, one objection to it, and that is, that the raw surfaces will sometimes come in contact and unite. In one of the worst cases on which I have operated, where the atresia was the result of sloughing following labor, I had great difficulty in keeping the Hodge pessary from becoming imbedded in the granulations.

The patient is twenty years of age. She has not menstruated, although she has taken Bland's pills in large doses. She presents an infantile appearance, the pubic hair is not developed, nor are the mammary glands as developed as they should be. On examination I find a thick, dense hymen, and I think that it would be well to remove a piece from it. The contraction of the vagina is, however, not so great as I thought it would be. I pass a sound into the cavity of the womb in order to irritate it and stimulate it. The uterus measures a little less than the normal size. I shall insert a Hodge pessary, to prevent union of the raw surfaces.

I shall give this girl a preparation of which I am very fond, that is : Solution of potassium arsenite, one dram; syrup of ferrous iodide, nine drams. Of this

she will, on the first day, take ten drops after each meal, and continue to increase the dose, one drop each day until on the twentieth day she will take thirty drops after each meal. This dose is to be continued for about two weeks. The dose is then lessened one drop each day, until the original dose of ten drops is reached, when it is stopped. The objection to this preparation is that it blackens the teeth; but this is only temporary and there is no injury to the teeth

## DISEASES OF CHILDREN.

### Rectal Alimentation in Children.

JACOB, in the *Archives of Pediatrics*, advises as follows :

The rectum absorbs but it does not digest. Whatever, therefore, is to enter the circulation through the lower end of the alimentary canal must be dissolved before being injected. Suspension alone does not usually suffice. Water can be introduced in quantities of from twenty-five to one hundred grammes (one to three ounces), every one, two or three hours, and may thus save life by adding to the contents of the thirsty lymph ducts and empty blood vessels. Salts in a mild solution will thus be absorbed. Food must be more or less peptonized before being injected. The peptones mentioned above are readily absorbed when fairly diluted. When too thick they are not absorbed, become putrid, and a source of irritation. Milk ought to be peptonized. The white of eggs becomes absorbed through the addition of chloride of sodium. Kussmaul beats two or three eggs with water, keeps the mixture through twelve hours, and injects it with some starch decoction. The latter is partly changed into dextrin. Fat,

when mixed with alcohol, becomes apt to be partly absorbed. Andrew H. Smith recommends the injection of blood. Its soluble albumen, salts and water are readily absorbed, more we ought not to expect. Still, he has observed that the evacuations of the next day contained none of the injected blood. Whatever we do, however, and be the rectum ever so tolerant, not more than one-fourth part of the food required for sustaining life can be obtained by rectal injections, and inanition will follow, though it be greatly delayed. Finally, children are not so favorably situated in regard to nutritious enemata as adults. In these the lengthening of the nozzle of the syringe by means of an elastic catheter permits of the introduction of a large quantity of liquid; indeed, a pint can be injected, and will be retained. But the great normal length of the sigmoid flexure in the infant and child, which results in its being bent upon itself, prevents the introduction of an instrument to a considerable height. It will bend upon itself; besides, a large amount of contents will be expelled by the feeble or resisting young patient. When a solid instrument is used, it is apt to be felt high up in the abdomen. This is the result of a large portion of the intestine being pushed upward.—*Medical News*.

#### **Dilatation of the Stomach in Children.**

MACHON (*Centr. f. Kinderh.*):

This subject was extensively treated by Demme, and the author's observations have been made since that time. The anatomy of the child's stomach shows a relatively defective development of the fundus, great diameter of the cardiac orifice, and deep position within the abdominal cavity. These facts have an important bearing upon the capacity of the organ, and the influence which is

exercised by the condition of fullness and by the extension of its wall. Its histological structure also shows only slight development of the muscular coat, especially of the valve-like muscle of the pylorus. Upon the mucous membrane there is also a greater development of the mucous than of the peptic glands. In the new born infant the stomach is fixed only at its two extremities, the cardiac end being at the level of the tenth costal cartilage, and the pylorus not extending beyond the middle line of the body. When the organ is full the pylorus is its lowest point, and is always covered by liver tissue; the upper half of the lesser curvature runs parallel with the left side of the vertebral column, and its lower portion lies transversely across its anterior aspect. The angle which is thus formed varies greatly with the different movements of the organ. Dilatation of the stomach may be acute or chronic, and the chronic process may involve the whole or only a portion of the organ. There may also be a functional and an organic dilatation, and one which is due to primary disease of its wall. Among the functional dilatations the most important is that which is based upon disturbance of the nervous system. This may be a lesion of the central nervous system, for example, tuberculous meningitis, or hypertrophy of the brain; or the nerves of the stomach itself may be at fault. It may also occur in connection with chlorosis, the cachexias, or relaxation of the muscular structure in consequence of chronic catarrh. Secondary dilatation of the stomach of the organic variety rarely occurs. Narrowing of the pylorus is always the causative factor, and to this may be added a congenital weakness of the muscular structure of the organ. Imperfect development of the muscular



coat and insufficient nutrition in the first months of life are also causative elements which occasionally exist. Cases are also recorded by Demme which were caused by keeping the child in bed too much of the time, and by rachitis, this disease being one which predisposes to disorders of the digestive tract.

The symptoms of dilatation of the stomach in children are partly local and partly general, and are similar to those which are observed in adults. The diagnosis can be readily made by inspection of the abdomen, by palpation, or examination with a sound. Diagnosis by percussion is not always reliable.

Functional dilatation, which is caused by nerve disorders, usually disappears with the primary cause. The prognosis in primary organic dilatation also depends upon the success with which the fundamental disturbance is treated. Prophylaxis should be the primary consideration in the therapeutics of this condition. When the condition is present stomachics are indicated, or the use of the gastric sound, as recommended by Epstein. The electric current and cold applications are indicated only in the functional form of the condition. General treatment must also receive careful attention.—*Arch. Pediatrics*.

#### Antifebrin in Feverish Conditions in Childhood.

THIS paper, by J. WEDERVITZ (*Wiener med. Wochenschr.*), records fifty-three cases, including scarlatina, measles, simple and with pneumonia, erysipelas, croupous pneumonia, etc., which were treated with antifebrin. Two noticeable points, not previously observed, were brought out.

First, that the effect of the drug was seen within from ten to twenty minutes after it was taken, and the fall of tem-

perature was very rapid till it reached its lowest point, when it began slowly to rise again, the rapidity of the fall depending more on the individual and the disease than on the dose given. The second point was the surprisingly favorable influence of the antifebrin on the general condition of the children. In almost every case restlessness was overcome, and sleep followed within a quarter of an hour after the dose was taken. Of the various diseases under treatment scarlet fever and erysipelas were the least affected by the drug; measles and pneumonia responded more certainly, and tubercular affections complicated with measles most quickly of all. The pulse was not affected to the same extent as the temperature. The dose given was about two grains to children three or four years old, and four to five grains to older children. The smaller doses, as a rule, were sufficient in the badly nourished, who as a rule react more energetically to the drug. As much as 30 grains was occasionally administered daily. Antifebrin had no noteworthy effect on the general course of the disease.—*Edinburgh Med. Jour.*

#### Bone-Disease after Smallpox in Young Children.

In Kashmir, where the writer's observations were made, such sequelæ are stated to be remarkably common.

From statistics he estimates that seventy-five per cent. of the population die in childhood from smallpox at that place.

The form of inflammation affecting bones and joints is generally the acute. The following cases are reported :

1. Disease of both elbows and one wrist in a boy three years old ; simultaneous excision ; cure.
2. Complete necrosis of the ulna in a

child of eighteen months ; resection ; cure.

3. Necrosis of the scapula; resection; recovery; age six months.

4. Acute inflammation of the shoulder joint; incision and drainage; recovery; six years old.—*Arch. of Pediatrics*.

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## OBSTETRICS.

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### Fifty Aphorisms in Pregnancy.

DR. E. J. KEMPF (*American Practitioner and News*):

*General Aphorisms.*—1. The safest plan is to consider every women, whether married or single, who comes to you for treatment, as pregnant until you have satisfied yourself to the contrary.

2. The physician or midwife should inform himself or herself all about the patient's former labors, general physical status, condition of lungs and heart, etc., the presentation and position and condition of the child and the location of the placenta by external manipulation, several weeks before delivery.

3. To find day of confinement, take last day of menstruation, say February 10th, count backward three months to November 10th, and add seven days= November 17th. An exact reckoning of the date of confinement is impossible, errors of one or two weeks being sometimes made.

4. Direct the pregnant woman to, 1, keep the bowels regular, 2, that the diet be plain and nutritious, 3, to take frequent baths, 4, not to get cold or wet, 5, to take moderate exercise, 6, to do the usual light housework, 7, to be in the open air often, 8, not to worry or get excited, 9, that the dress should be warm, loose, and there should be no pressure on the breasts, waist or abdomen, 10, to wear an abdominal bandage,

11, to bathe the nipples in some astringent solution if they are sore, 12, to consult the family physician for any indisposition. (Munde.)

5. Moderate coition is allowable during the first seven months of pregnancy, and fondling of the breasts and nipples by the husband during the latter months is advisable. (Späth, *Geburtsenkunde*, 1857.)

6. *Signs and Symptoms of Pregnancy.*—Morning sickness occurs during the end of the first month, the second and third months, and sometimes during the fourth and fifth months. Occurring after that it is probably abnormal. (Munde.)

7. Menstrual suppression is the rule during all the months. The menses may occur during the first, second and third months, rarely afterward. Conception may occur when menstruation is normally absent, as in young girls before menstruation is established, and after the change of life and during lactation.

8. At the beginning of the third month mammary areolæ become turgid. This is not a reliable sign, as it may occur in uterine or ovarian disease. (Playfair.)

9. Abdomen begins to enlarge during the third month, and becomes marked during the fourth, when the uterus rises three fingers' breadth above the symphysis pubis; during the fifth it occupies the hypogastric region; during the sixth it rises to the umbilicus; during the seventh two inches upward; during the eighth and ninth months it gradually enlarges until it reaches the ensiform cartilage. For about a week before delivery the uterus sinks somewhat into the pelvic cavity. (Playfair.)

10. Fetal movements start in at about the middle of the fifth month. These movements may be simulated by irreg-

ular contractions of abdominal muscles or flatus within the bowels. (Playfair.)

11. Ballotement will be of service at the end of the fourth month to the end of the sixth month. (Playfair.)

12. Uterine soufflé can be heard at the end of the fourth month, and until the term ends. (Playfair.)

13. Fetal heart sound can be made out during the fifth, sixth, seventh, eighth and ninth months. The pulsation is likened to the tic-tac of a watch under a pillow. Steinbach makes the beat 131 for male children and 138 for females, but this is not practical. The beat is most easily heard when the back of the child lies to the abdomen of the mother. An accelerated or irregular beat, preceding or during labor, means danger to the child. There is no relation between the fetal and maternal pulse.

14. The most valuable signs of pregnancy are fetal heart pulsation, fetal movements, ballotement and intermittent contractions of the uterus.

15. Miscellaneous signs of pregnancy are dusky hue of the vagina, dentalgia, facial neuralgia, tendency to syncope, salivation, unusual gratification during some particular act of coitus. (Munde.)

16. The unimpregnated uterus measures two and one-half inches and weighs one ounce, at term it measures six times as many inches and weighs twenty-four times as many ounces. The cervix uteri does not shorten during pregnancy except during the fortnight preceding delivery, which is due to incipient uterine contraction. The cervix begins to soften by the end of the fourth month; by the end of the sixth month one-half is thus altered; by the eighth, the whole of it. The os is generally patulous. (Playfair.)

17. *Diagnosis of Pregnancy by External Manipulation.*—By inspection we may

learn the general contour of the abdominal enlargement, whether it be of the usual pear shape or broader, as is the case with shoulder presentations. Where there are twins, side by side, there is usually a depression or sulcus between them, and the uterus is broader transversely. If the twins be placed one in front of the other, no difference can be noted in the breadth of the uterus.

18. By percussion we make out the outlines of the uterus.

19. By palpation we feel the outlines of the uterine tumor, the prominent parts of the child, the round, hard, bony head, the soft breech, the knees, the feet, the elbows, the round arched back and the movements of the child.

20. By auscultation we may learn the condition, the presentation, the position, and the sex of the fetus and the location of the placenta. (Wilson.)

21. The position of fetus is generally head downward, and breech toward the fundus uteri. (Playfair.)

22. *Spurious Pregnancy.* Pregnancy is simply by pelvic or abdominal tumors, obesity, ascites, tympanites, distension due to retained menstrual blood, amenorrhœa, etc. A careful physical examination is the only guard against a mistake. (Munde.)

23. *Abnormal Pregnancy.* Extra-uterine gestation—early treatment, the faradic current, late treatment, laparotomy—is very dangerous. Molar pregnancy, be it hydatiform, carneous or spurious, calls for complete removal of the mass. Hydramnios may necessitate premature delivery. (Munde.)

24. *Disorders of Pregnancy.* Vomiting of pregnancy, as a rule, needs no treatment, but, if excessive, it is relieved the quickest by the application of cocaine and vaseline (one in fifty) against the os uteri, and by one-sixteenth of a

grain of cocaine, internally, frequently repeated. When vomiting of pregnancy becomes so persistent that it resists all treatment and threatens to destroy the pregnant female, abortion or premature labor may become necessary, but should never be undertaken without a consultation. (Munde.)

25. Anemia—the best treatment for this is good food, light, air, exercise, iron and arsenic, and removal of the cause if possible.

26. Plethora may call for saline laxatives and restriction of albuminoid food.

27. In constipation direct a regular hour of the day for going to the closet, and give compound licorice powder, or cascara sagrada, or enemata.

28. Diarrhœa should never be neglected, as it may lead to abortion or premature labor. Give paregoric and tincture of catechu, or acetate of lead, opium and ipecac, and keep the patient quiet.

29. Leucorrhœa calls for vaginal washing with carbolized tepid water.

30. Pruritus, which may be general or local, treat with soda baths if the former, and, if the latter, treat with carbolic acid in glycerine, nitrate of silver in mild solution, cocaine in rose water, hydrate of chloral in water, etc.

31. Frequent micturition may often be relieved by an abdominal supporter. So also incontinence of urine. Strychnia, belladonna, or cantharides may be tried in both troubles.

32. In varicose veins, besides applying a flannel bandage or a silk stocking, instruct the woman how to apply a compress and bandage in case of rupture of a vein, as the hemorrhage may be great.

33. Diabetes, albuminuria, jaundice, neuralgia, hemorrhoids, etc., during pregnancy, call for the same treatment as when occurring at other times.

34. Uterine displacements call for

replacement, followed by the application of an appropriate pessary and supporter.

35. False pains may come on at any time during pregnancy, and cannot be told from true pains, except that the former are relieved by opium.

36. High temperature in the mother is not necessarily incompatible with fetal life.

37. *Immature Delivery.* Abortion is the expulsion of the ovum before the formation of the placenta (twelfth week); miscarriage its expulsion before the period of viability (twenty-eighth week); premature delivery, its expulsion between the twenty-eighth and thirty-eighth week. (Munde.)

38. Causes of immature delivery are predisposing, dependent on constitutional affection, and exciting, dependent on mechanical or emotional violence. Symptoms are pain and hemorrhage and dilatation of the os uteri. Dangers to mother from sepsis, fatal hemorrhage, perimetric inflammation, carneous moles. Dangers to child—want of viability.

39. Treatment is prophylactic by fluid extract black haw, and removal or avoidance of cause; preventive by rest, opium and black haw; and, in inevitable cases of abortion, empty the uterus and check the bleeding by rest and ergot, by tampon, and after dilatation of cervix by finger or dull curette. (Munde.)

40. Miscarriage should be treated like abortion, and premature labor like labor at full term.

41. Artificial abortion is best performed, up to the fifth month, by dilatation of the cervix with the steel branched dilator; it is done because 1, persistent vomiting, 2, organic visceral lesion, 3, incarcerated uterus, 4, deformity of pelvis, 5, presence of large tumors. (Munde.)



42. Premature labor is best induced by catheterization of the uterus—not rupture of membranes, for 1, dyspnœa from enormous distention of the abdomen from any cause, 2, hemorrhage from placenta previa, 3, uncontrollable vomiting, 4, organic heart trouble, 5, habitual death of the fetus, 6, pelvic contraction of moderate degree, 7, hopeless condition of the mother, 8, where in previous labors there have been unusually large children. (Munde.)

43. *Fetus*. Fetus at first month is rarely to be detected in abortions. At second month it weighs sixty grains, measures six to eight lines, head and extremities are visible, eyes are two black spots on side of head, umbilical cord is straight, the clavicle and inferior maxillary bone begin to ossify. At third month the embryo weighs from seventy to three hundred grains, measures from two to three inches, forearm is formed, fingers can be traced, placenta is formed. At fourth month weight is from four to six ounces, length six inches, sex of the child can be made out. At fifth month weight ten ounces, length ten inches; hair and nails beginning. At six months weight one pound, length eleven to twelve inches; membrana pupillaris; eyebrows. At seven months weight three or four pounds, length thirteen to fifteen inches; eyelids are open; testicles in scrotum; clitoris prominent. At eight months four to five pounds, length sixteen to eighteen inches; nails; membrana pupillaris has disappeared. At nine months weight six to eight pounds, length nineteen to twenty inches; males somewhat heavier than females. (Playfair.)

44. *Signs of Death of Fetus*. Before labor the signs of death of the fetus are, 1, loss of fetal heart-beat, 2, loss of fetal motion, 3, sense of dull weight in the uterine region felt by mother, 4,

sense of coldness in the womb, 5, putrescent fetor in the discharges, 6, discharge of flatus from the uterus.

45. *The Placenta, Liquor Amnii, etc.* The placenta supplies nutriment to and ærates the blood of the fetus. It may be situated anywhere in the uterine cavity. The umbilical cord is the channel of communication between the fetus and placenta. The placenta at full term is a moist mass, containing a great deal of blood; spongy in texture; about seven inches in diameter; usually oval; one surface smooth, facing the cavity in which the fetus lies, the other surface rough, fastened to the walls of the uterus. The color is reddish, but varies in tint according to the condition of the blood.

46. Liquor amnii is secreted by the amnion and the allantois, it affords a fluid medium in which the fetus floats, and so is protected from shocks and jars, it saves the uterus from injury from the movements of the fetus, and in labor it lubricates the passages. It has nothing to do with the nourishment of the fetus.

47. The uterine and placental murmurs are not usually taken notice of in the diagnosis of pregnancy.

48. Knots in the umbilical cord are brought about by passage of the child through a loop in the cord, generally during labor.

49. In twins, triplets, etc., there may be one placenta or more than one. If two fetuses, they may be joined by two cords to one placenta. This cannot be made out during pregnancy.

50. So-called material impressions, monstrosities, marks, etc., are the result of arrest of evolution due to pressure by amniotic bands, pressure by the umbilical cord, adhesions of the placenta, or to some pathological condition of the fetus or its membranes, or to heredity.

## DISEASES OF WOMEN.

**A New Suture-Fastener for Silver Wire,  
Especially Adapted for Operations upon  
the Cervix and Perinæum.**

DR. AUGUSTIN H. GOELET gives the following description in the *N. Y. Medical Journal*:

Those who have operated much for lacerated cervix, using the silver wire for suture, have experienced the great objection to its cutting into the tissues when twisted.

If twisted tight enough for thorough coaptation, it is sure to cut deeply, and will be found buried out of sight when the sutures are removed. Sloughing or non-union is often the result, as the suture becomes loosened when the tissues give way, and this allows the margin of the wound to gape. The furrows left by the twisted sutures may be seen on the cervix years after the operation. But silver wire has held the preference over all other sutures for this location, because those which require tying are inconvenient of application. The catgut does not last, except for supplementary sutures, and silk is more apt to cut than silver wire.

Any thing which will avoid the necessity of twisting the silver wire will, I feel sure, be appreciated. For this purpose I have devised this lead button shield, which, when the wire has been well shouldered, is pushed down upon it tightly against the cervix, and clamped like a shot. (See Fig. 1.)

It has a smooth concave surface, with rounded edges, which may be moulded to fit the side of any cervix, and from the middle of the outer or convex surface there is a projection resembling an oblong shot through which there is a perforation for the wire. The wire should be well shouldered, either with the knot tyer or the needle holder, which has had

a groove made across the end to keep the wire from sliding off. When the knot tyer is used, the ends of the wire must be crossed, which need not be done when the needle holder is used. The shield may be clamped in position by the ordinary strong needle forceps, and a multiplicity of instruments avoided.

Usually two sutures, fastened in this way on each side of the cervix, are all that are necessary, even in very extensive lacerations, with an additional catgut suture on each side near the os.

There is the same objection to silver wire when it is used for closing the external perineal wound. Although the skin is more able to resist than the mucous surface, great care is always necessary to avoid twisting the suture

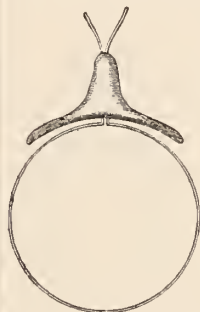


FIG. 1.

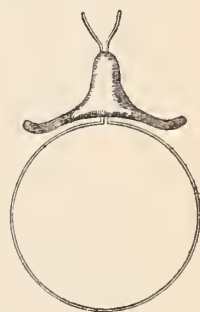


FIG. 2.

too tight, and, as an extra precaution, it is loosened afterward. When the tissues become swollen, it will cut some even then.

I have prevented this cutting and secured better results by using the same fastener as described above, with the ends of the shield surface turned up, as shown in Fig. 2, to avoid digging into the flesh when the knees are brought together.

When the silver wire is used for closing the abdominal wounds after laparotomy the same fastener may be used with advantage if the shield surface is flattened out somewhat.

As a substitute for the lead button

used to fasten deep sustaining sutures in large flap operations, where there is much strain on the line of union, I have had the shield surface made larger and curved up at the sides (something like a small Bozeman button), and the projection and perforation in the centre, which avoids the necessity of using shot. (See Fig. 3.)

The advantages claimed for this fastener over the twisted suture are, viz.:

1. The rapidity of its application.
2. The support to the parts furnished by the concavity of the shield surface.
3. The wire will not cut and allow the sutures to loosen and the margins to gape.
4. The sutures are more easily removed because the wire will not be buried out of sight.
5. Fewer sutures are required.
6. It promotes more prompt union and better results.



FIG. 3.

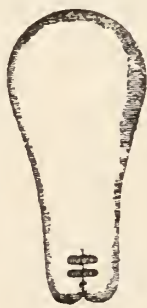


FIG. 4.

To remove these sutures the projection is seized with a pair of dressing forceps, slight traction made, and the scissors inserted under the shielding surface, and one side of the wire cut.

From the discussion which followed the reading of this paper, I fear I did not make one point quite clear and may be misunderstood; therefore I will add another illustration (Fig. 4) to show the position of the button shield when in place. They are applied across the line of union of the two denuded sur-

faces on each side of the cervix, the concavity of the shield fitting the convexity of the side of the cervix, and when pushed down in place, while the projection is in the grasp of a pair of strong needle forceps, it is compressed like a shot, and the ends of the wire cut off close to the lead projection.

The claims of advantage for this fastener, as set forth above, have certainly not been exaggerated. I have used it as well as the twisted suture long enough to be sure that it is a decided improvement over the twisted suture, although it may not be (as was claimed by some present) an actual necessity. It might likewise be claimed that the electric light and telephone are not actual necessities; still this is no argument that they are not decided improvements upon gas and the telegraph.

I assert that the silver wire when twisted will cut more or less when the tissues become swollen, as they do after these operations, and that the use of this shield will prevent it. Let him who doubts the truth of this assertion try it for himself.

#### On the Repair of Lacerated Perineum.

DR. WILLIAM GOODELL, in a clinical lecture published in the *Medical Times*, said:

While our patient is being etherized, I will give you a short account of her case: This woman is married and has three children; she is about thirty years of age. She had difficulty with her first labor, about six years ago. It was a forceps delivery which tore the neck of the womb as well as the perineum; the laceration being complete and as I found upon examination, it extended for some distance above the sphincter ani. When she came to us a few days ago I found that she was about four months pregnant. This you see intro-

duced a new complication into the case. The question comes up, whether it were better to operate now or to wait? Of course we must defer operation upon the womb until after the labor, but shall we also leave the lacerated perineum until that time? This is the way I argue the case: If I wait to operate until she has been delivered, I should further have to wait until the child is weaned. Therefore, it would be at least two years before I should again have a chance to operate upon the perineum. During all that time she would have no control over the lower bowel, she would constantly have to wear a napkin and the escape of wind and the contents of the lower bowel would be a source of constant mortification, and prevent her from going into the company of her friends. On the other hand an operation would relieve her of this annoyance at once, and would be without danger as regards the pregnancy. I have decided therefore to operate to-day.

In preparation for the operation, she was given a laxative yesterday morning and again last evening, and this morning the lower bowel was cleansed with a large injection of warm water. The perineum has been washed with carbolyzed water, and the skin has been shaved. The patient lying on her back, with her sacrum at the edge of the operating table, has her thighs and knees strongly flexed and securely held in position by the aid of Clover's apparatus, and the field of operation is before us.

You see these wrinkles in the skin at each side of the anus. They indicate that the sphincter ani has been torn through; they are never seen in front of the anus but at the sides and a little posteriorly. Now then, in order to find the torn extremities of the sphincter muscle we must look for the depression or dimple in the skin on each side.

Here they are easily seen. The end of the torn muscle is immediately beneath this spot. We also find that the tear has extended for at least one inch up into the rectum. She has, as you have heard, no control over the contents of the bowel whatever.

I will now proceed to denude the part commencing over the dimple on one side (the left), carrying my dissection of the skin with my scissors directly across the perineum until I reach the corresponding point on the right side, removing a strip a quarter of an inch in width. Now, I will take another denudation a little higher up; trying to keep it in one piece if I can. My reason for doing this is that when I cut off strips I know that the tissue is all removed, and that no part escapes denudation. We have, now, a raw surface extending directly across the perineum, beginning on each side with the termination of the torn ends of the sphincter.

I am going to sew up the tear in the bowel at once before going any further. For the sutures, I prefer fine catgut soaked in oil of juniper, for the reason that it gradually dissolves in the wound and does not require to be removed by the surgeon as silk or wire would. In the present case, as I have not that kind of gut at hand, I shall try carbolyzed horse-hair with which to stitch together the torn edges of the bowel. Now, watch this next step carefully, because upon it depends the success of the operation.

I do not believe that there is any other method that will repair the bowel as well as this one, or that will restore full control over the evacuations. By other modes of operating you can get a very good perineum, but there is none other that will give full control over the bowel. In paring the edges of the wound, I am careful not to cut too

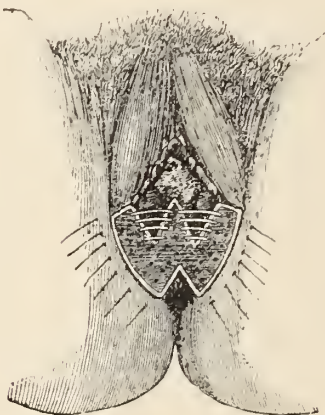


much into the mucous membrane of the bowel, because it will contract its lumen. I have now put in four interrupted sutures ; the first being at the upper part of the lesion and the other lower down, each of the latter being lower than that immediately preceding. You will see, presently, how I have reduced the extent of the wrinkling ; I do not expect to efface it entirely, because it has been here too long for the skin to recover its natural appearance at once. These stitches, you notice, do not take up any skin at all, but merely approximate the torn edges of the bowel. Each one is drawn tight, tied, and the ends cut short. It does not matter if they do cut a little. The fifth, or final stitch I am now taking, does include the skin with the sphincter muscle at its extremities, on each side ; this, however, I shall not tie for the present, but shall leave it until all of the others, for the repair of the laceration of the perineum, are in place. You observe that this final stitch, when tied, will approximate the skin and also the mucous membrane, as well as the sphincter muscle, and will thus restore the form of the anus.

Now for the next step, which is the repair of the perineum. The surface must be denuded all the way up the labia as far as the cicatricial tissue extends. But I save as much as possible of the mucous membrane of the vagina to make a back wall to the new perineum. While dissecting up this mucous flap, I keep my left forefinger in the rectum to make sure that I do not cut through into the bowel. The denuded area should be equal upon each side of the median line.

The perineum needle which goes by my name is more curved than the one in ordinary use. It is to be buried in the tissue all the way across the perineum. The point is introduced into

the sound skin upon one side of the perineum, and pushed through until it appears at a corresponding point upon the opposite side ; my finger in the rectum shows me that it has not penetrated the bowel, nor has it appeared in the vagina. The suture is now loosely fastened with a shot. For the perineum, I am using silver wire sutures. I prefer the wire here to catgut or horse-hair, because I can leave the sutures in for a week or more, if necessary ; they do not yield, nor do they excite irritation ; when the parts are ready, they will easily come away. These stitches, commencing at the lower part of the wound, are introduced successively at intervals of less than half an inch, until the upper margin of the wound is reached.



Before drawing the ligatures and fastening them, I have the surface of the wound washed with several syringefuls of carbolyzed water, in order to cleanse and disinfect the parts, and remove blood-clots, etc. This is an important precaution in order to secure success in all these plastic operations. In vesico-vaginal fistula failure is often due to the fact that the raw surfaces are not brought completely into apposition with each other on account of intervening clots. (The method of

introduction of the sutures is shown in the cut.)

The shot is now pushed down on the lowest suture and clamped, and in this way the six wires are successively fastened. You will notice that the edges of the mucous flap are brought into contact with mucous membrane, and the skin with skin; all the stitches are outside in the perineum and none appear in the vagina. This avoids a cicatrix in the vagina, which might tear in her approaching confinement.

This makes the very best perineum I know of; there is no other operation which can at all compare with it in giving a perineum so firm and secure. If you will put your finger into the vagina you will not feel any stitches; all the sutures are outside of the vagina.

Now with regard to the after treatment. We shall get her bowels to move on the day after to-morrow. She shall have then some compound licorice powder. I shall try to get along without opium. I make it a rule, as far as possible, in these operations to avoid opium, and I have found that patients get along very well without it. Then we will open the bowels again in forty-eight hours, preferably by the laxative; but if this is not sufficient, she shall have an enema of warm soap suds. I prefer the medicine, because I am afraid to trust the patient or her attendant with the syringe; she might not be sufficiently careful.

I prefer drawing her water for the first forty-eight hours. In inserting the catheter the patient should be lying upon her back, with her knees elevated; the attempt to introduce the instrument should not be made without the aid of sight.

After the operation the patient's knees are kept tied together. I do not regard this as essential, but prefer to have it

done. She might move in her sleep and disarrange the dressing. She shall be fed on food which contains as little milk as possible, because milk makes a great deal of fæcal matter and also constipates. After the first dose of compound licorice powder she shall have a teaspoonful every eight hours, if necessary, until the bowels are in rather a loose condition.

The patient made a perfect recovery.

#### **Influence of Obesity in Young Women Upon the Menstrual and Reproductive Functions.**

DR. ANDREW F. CURRIER (*Medical News*) says:

It is somewhat surprising that the law which evidently obtains in this matter has been so generally overlooked by modern and contemporary observers; at least I have found very little reference to it in recent literature. That law may be formulated in the following terms:

1. A woman under 30 years of age who bears four, five, six, or more children in rapid succession and suckles them, prematurely reaches the limit of her physical powers as a reproductive animal, the phenomena of the climacteric supervening. This applies to the average woman under present conditions of civilization, and, in a marked degree, to those who become obese after so frequent pregnancies.

2. A woman under 30 years of age who becomes obese, from whatever cause, will as a result be subject to amenorrhœa, or oligomenorrhœa (a term which I have proposed as a synonym for scanty menstruation) and usually to dysmenorrhœa, though menstruation may previously have been nearly or quite painless. If such patients be married sterility will be the rule. This law, like most other laws, has more or

fewer exceptions, but observation and reflection during a not inconsiderable experience have convinced me of its existence.

The prognosis in many of these cases may be considered exceedingly good, excluding, of course, those in which the climacteric has followed extraordinary fruitfulness. For the latter the condition of sterility is permanent, and I doubt whether any system of treatment could change it. It is the order of nature. For the others a properly regulated diet is of primary importance, hydrocarbons being eschewed in favor of albuminoids. Alcohol in any form is contraindicated. Suitable exercise must be insisted upon, either by the performance of the active duties of household life or a suitably arranged course of gymnastics, including *massage*. Worthington recommends the systematic use of the waters of Vichy, Marienbad, Carlsbad, or Ems. I am profoundly impressed with the value of electricity for this condition both in the form of general faradization and the intrauterine use of the faradic current. Not only will the muscular tone of the uterus be improved by this means, but the entire pelvic circulation will be favorably affected. I have seen some cases which seemed to be benefited by the use of astringents and stimulants to the interior of the uterus, also by moderate dilatation, but the same means have also been successful in exciting violent inflammation, which leads me to be cautious in recommending them.

The systematic use of laxatives will be required in almost every case, and we should look well to the condition of the heart, using suitable tonics as they are indicated. The internal use of iodide and its compounds has not been attended with the success which its early advocates would lead one to ex-

pect. Worthington approves highly of hydrotherapy, especially sea-bathing. Warm baths are to be avoided.

#### **The Use of the Vaginal Tampon in the Treatment of certain Effects following Pelvic Inflammations.**

IN a discussion of Dr. T. A. EMMET'S paper on this subject, published in *N. Y. Medical Journal*, Dr. Bache MCE. Emmet said he would make a distinction between the active tampon and the passive, so to speak. In general, he had observed nothing but benefit from the use of cotton pledgets, elevating the uterus, making a pressure on the lymphatics and blood vessels, and supporting displaced organs in whatever position he might have placed them, but he realized how much harm might come from the active tampon, from injudicious pushing and stretching of fibrinous bands within the pelvis. He thought that as much injury might be produced by the forcible manual overstretching of adherent bands and fibers in replacing, for instance, the uterus from a state of retroversion to that of the normal anteversion, as by the use of the Simpson or Peaslee sound for the same purpose. This implied degree of force was not of necessity brought to bear in using the tampon for progressive pressure; yet, as the immediate results were proportionate to the violence applied, one might be led to make too free use of one's power, and so to frustrate one's plan of progress, by creating an activity of resistance in parts which before had been indolent and inert. To consider how far this mode of treatment might prove serviceable, it was essential, in the first place, to define accurately those inflammations which might properly be subjected to it, and in the second place, to make sure of the correctness of the diagnosis in each individual case at the time of applying

the treatment. He had never made use of the tampon in the treatment of actual pelvic inflammation, but only to do away with its remains and to overcome its effects. In the acute inflammation the element of rest must enter so largely into the consideration of the case that this treatment was practically contraindicated. Were it practicable to apply such a method at the very inception of a lymphangitis, and so bring pressure to bear that effusion could scarcely find its place, undoubtedly good might be accomplished; but that was not the case as a rule. Such inflammations were rarely seen in that very early stage, and, even if they were, the use of hot water was a still better means. From the force with which it could be applied, it might be considered to exert actual pressure, besides which it supplied the astringent effect in the most simple and efficient way, which could only be approached with the tampon by the aid of medicated pledgets. There were many chronic cases in which such a mode of treatment would seem inapplicable also, in which, as a matter of fact, almost all treatment was inapplicable or uncalled for. If physicians recognized such cases accurately at the outset, and applied treatment only in such of them as called for it, they would spare themselves an infinite amount of useless labor and the patients much suffering and expense. There were many cases in which, for one reason or another, some exudation was found in the pelvis, either in a mass or in shreds, which had displaced or was binding down the uterus or one of the annexa. This condition was often entirely harmless and quiescent, and one would be greatly at fault to attack it and thus inaugurate a period of treatment which might never come to a satisfactory end. Even where it was recognized that the old

effused material was at the bottom of a positive harm, that it had impaired the usefulness of an ovary or distorted and bound down a Fallopian tube, it was not always judicious to proceed by any active stretching or tearing of these adhesions to restore the parts to their normal position or freedom, although the majority of the cases would call for just this treatment. The cases in which he would specially advise against this forcible mode of treatment were those in which there was reason to believe there was either a marked tendency to acute pelvic inflammation, which might aggravate the existing condition; a fullness of the hæmorrhoidal vessels, as indicated by puffiness or throbbing, from which it might be deduced that the effused material was also well supplied with blood, in which case there would be reason to fear rupturing the vessels, and so producing hæmatoma or hæmatocele; and lastly, those in which there was pyosalpinx, and rupture of the cyst with its evil consequences was to be feared. But the benefits to be derived from gentle, gradual pressure and displacement, he believed, far outweighed the possible harm. It was not to be doubted that by this persistent passive pushing and crowding, combined with the counter-irritant treatment, the dislocated and crippled organs of the pelvis might be fully restored and made useful. The evidences of dysmenorrhœa overcome, of locomotion improved, of an active life restored, were too many to justify withholding from this plan of treatment the full measure of credit. The influence upon the distended blood-vessels attending displacements of every variety consequent upon pelvic inflammation, the soothing effect upon the nerves within the pelvis induced by relief of this congestion, and the improved well-being of the woman, with, at the



same time, the normal reposition of the organs, amply attested the value of the practice, and he felt certain that similar results could not be produced by the use of hot water and counter-irritation alone.

Dr. Henry C. Coe said that the subject of pelvic inflammation was one that had interested him ever since he began to study gynecology, not only because of the complicated anatomical questions involved, but by reason of its important bearing on every gynecological manipulation and operation. The careful specialist never examined a patient without asking himself whether an inflammatory complication existed which might not only explain the symptoms, but also modify the results of an operation. The speaker had expressed his views on the subject of chronic pelvic inflammation in a paper read before the association at its first meeting, and more recently had considered the use of the tampon in the treatment of the adhesions resulting from such inflammation. Our ideas regarding the treatment of pelvic inflammation must naturally be modified by our views of its essential nature. Any system of therapeutics based merely on tradition, for which we could offer no sound pathological reason (valid to ourselves, at least), we could not defend with any degree of enthusiasm. Many of us used the tampon in treating pelvic inflammation as a matter of routine, without expecting any special results. This skepticism doubtless prevented us from giving it a fair trial in a given case, and led us to attribute its good effects to other treatment. The speaker acknowledged that this was the tendency with himself. It seemed to him desirable to exclude from the discussion the use of the tampon as a mechanical force applied for the purpose of stretch-

ing old adhesions, the result of former inflammation. He did not regard such adhesions as "pelvic inflammation" proper any more than the firm bands which resulted from pleurisy could be termed an active inflammatory process. He would limit the subject to the use of the tampon as an antiphlogistic. It was commonly stated that, in cases of venous congestion accompanying descent of the uterus below its normal plane, by elevating the organ by means of tampons we supported or diminished the tension on the dilated and elongated veins, and thus relieved the congestion.

#### Nervous Rectum.

DR. GOODELL, of Philadelphia, read an entertaining, and in part humorous, paper :

He described the rectum as being sometimes insane, as it were, whilst the rest of the body enjoys perfect sanity. One variety of this neurosis is the hysterical rectum, the muscles being thus affected, but the sphincters more so than the other set of muscles. A frequent form is spasm of sphincter, which renders defecation painful, and hence induces costiveness. These victims become easily addicted to opium eating. When the rectum is loaded a pulsating pain is felt. If there be in addition some ovarian irritation and enlargement the affection becomes very distressing.

Another form the speaker alluded to as the "jealous" rectum. He gave some very ludicrous instances where the rectum put its veto on any attempts at indulging in social intercourse. One lady always began to have an evacuation from the bowels as soon as she received a letter from her husband, and was obliged to delay reading it until the rectal demands had been satisfied. A second individual would soil her bed after any violent mental emotion. All

these persons were kept prisoners at home and had to abandon social intercourse.

A third form he described as "follicular colitis," or "membranous enteritis." He found this affection so often in hysterical patients that he looked upon it as a neurosis, just as pruritus, shingles, etc., are nervous skin affections. He found all these forms of rectal trouble as being peculiar to emotional women of high intelligence; none of them belonged to the lower walks of life. The diagnosis between these neurotic troubles of the rectum and disease of the coccyx is readily made by the introduction of the index finger into the rectum and the thumb over the coccyx, showing that this appendage is movable.

The treatment depends on the form of the trouble. He regarded that of Weir Mitchell for nervous prostration as the best. Seclusion, forced feeding, massage and electricity, the latter two equalizing the nervous fluid and stimulating a healthy action of the nerves. As soon as enemata can be borne, they should be administered before bedtime. Suppositories of iodoform act beneficially, and, in case of spasm of the sphincter, stretching of the sphincter ani. Follicular colitis is almost incurable, but may be soothed by means of suppositories of iodoform, antipyrin, etc. Sometimes injections of lime water or Carron oil greatly relieve this trouble. He cautioned strictly against the use of opium in any form, as these patients are very apt to become opium eaters. Altogether the best medication consists in the administration of remedies constitutional in their action. His favorite prescription is the pil. sumbul comp.; Blaud's pill is an excellent remedy, beginning with one pill three times a day, gradually increased until three are taken

after each meal. Occasionally he gave as many as five after each meal. Pills composed of the three valerianates (zinc, iron and quinine) are of great value, also pills composed of chloride of gold and soda. When malaria is at the bottom of the trouble, Fowler's solution acts well. The bromides are often needed and may be advantageously combined with the bitter tonics, as the tincture of gentian comp. When the paroxysms are sudden, antipyrine and the hydrobromate of hyoscyne are serviceable. Absolute rest of mind and body, secured by absolute seclusion in a darkened room, is sometimes indispensable.—*Med. and Surg. Reporter.*

#### Formula for Dysmenorrhœa.

*L'Union Médicale du Canada* says that Calvin's formula is : Tincture of gelsemium ; camphor water ; deodorized tincture of opium,  $\text{āā f 3 ij}$ . Mix. Dose, 30 drops every two hours.

### DISEASES OF CHILDREN.

#### Causes and Means for Preventing Infantile Diarrhea.

THE statements are based largely upon statistics published since 1872. The mortality reports of the principal cities of the United States and Europe show that the deaths among children in general bear a direct ratio to the number of births.

During the years 1881-1886 the mortality from diarrhea among children between one and four years was 24.5 per cent. of the total mortality for that period of life. The importance of this disease warrants particular study of its etiology, which may be carried out under the following headings :

1. *Causes of Development.*—The first year of life may be considered a predisposing cause on account of the pecu-

liarily sensitive condition of the digestive organs. The mortality during this period is seventy-three per cent., and males are more susceptible than females in the ratio of one hundred and fifteen to one hundred.

2. *Social Causes*.—The poor, the illegitimate, and the children of the working classes suffer much more from this disease than those in the opposite conditions. Geographical position does not seem to have any bearing, *per se*, upon this question.

3. *Causes of a Meteorological Character*.—The months during which the disease prevailed most extensively were August, September, July, October, June, and in that order. Epidemics prevail during the warmest months, and the mortality increases during foggy weather, when the ozone of the atmosphere is diminished, and when the velocity of the wind is not uniform.

4. *Hygienic Causes*.—The number of victims is greater in the city than in the country. Children who live on high ground in the cities, where there is good water and sewerage, are less prone to the disease than those who live under the opposite hygienic conditions. The three hypotheses as to the causes of diarrhea which are now considered most probable are the chemical, the microbic, and the ptomainic.

5. *Dietetic Causes*.—Improper diet, especially milk of a poor quality, is the chief cause of this disease. Mother's milk is, of course, the most suitable for the nourishment of infants, unless it should continue to excite diarrhea a number of days after birth. Cow's milk is unsuitable for children's use when the cow's udders are affected with any form of inflammation, and also when the food supply of the animals is deficient. Mare's milk is a very good substitute for human milk, but it is

difficult to procure it. The use of fruits for children gives rise to gastric disorders and predisposes to diarrhea.

The following preventive measures are suggested :

Unusual care for very young infants, especially boys.

Suitable places of protection for illegitimate children.

Better hygienic conditions among the laboring classes.

Watchfulness and extra precautions during humid weather, and in times of sudden atmospheric changes.

Suitable means of hydrotherapy should be adopted, baths being given during the hottest portion of the day, but not, as a rule, in the morning or the evening.

Woolen coverings should be worn over the abdomen to protect the digestive organs from changes of temperature.

All filth should be removed from dwellings and suitably disposed of.

Sewers and drains should be abundantly flushed with water.

Mothers should suckle their infants when possible at least, for nine or ten months.

Infants should not be weaned between the months of May and October.

Cow's milk should be boiled before it is used.

Cows should be inspected by health officers, and also the food which is given to them.

During the first months of life only milk should be used for those who are not fed at the breast, with the possible addition of a small quantity of starchy food.

Meats and fruits should not be given until the child is three years old.

During hot weather fruit should not be given to children, as a rule.

When one is attacked with diarrhea the physician should insist upon the disinfection of the dejecta with a one

per cent. solution of lactic acid, or a solution of sublimate of suitable strength.—*Arch. of Pediatrics.*

#### Treatment of Chronic Bronchitis in Children.

DR. T. J. MAYS says in *Medical News*:

Quite an extended experience in the treatment of these cases teaches us that persistent counter-irritation is of the first consideration. If there is much impediment to the ingress and egress of air, or, in other words, if there is much dyspnœa, the child is at once placed in bed, the chest is enveloped with a hot flaxseed meal poultice (covered well with oiled muslin) which must be changed every three hours. In most cases, however, it is not necessary to order the child to bed, and counter-irritation is produced with a mild croton oil liniment. Croton oil and sweet oil well mixed in the proportion of one to two parts of the former to six of the latter, is well rubbed into the skin of the child's chest—in front under the arms, and between the shoulder-blades, not with a flannel or cloth, but with the mother's or nurse's fingers, twice a day, and then the chest is well covered with a layer of cotton wool. It is important that as much as ten or fifteen minutes be spent in rubbing the liniment well into the skin, after which the hands must be thoroughly washed. In the course of four or five hours a red blush of the skin will appear, ending in fine yellow pointed pustules. Simultaneous with this eruption the cough becomes easier, the expectoration more free, the dyspnœa less—in fact the most remarkable change will be brought about in the little patient.

Attention was first called to the usefulness of this application by Dr. Park in a short contribution to the

London *Practitioner*, and although he principally recommends it in acute bronchitis, we can say that we have found it as useful in the form of the disease here described, as he did in the acute form. Indeed we may add that we have also given it a fair trial in acute catarrhal affections of the chest in children and never had any reason to feel disappointed with its action.

The internal treatment must be directed toward a stimulation of the bronchial mucous membrane, and toward a recovery of the appetite. The former will be attained in a great measure by the following combination:  $\mathcal{R}$ . Ammonia $\bar{e}$  murias.,  $\mathfrak{z}$  j; ex. euphorbia pil. fld.; tinct. digitalis,  $\bar{a}\bar{a}$  fl.  $\mathfrak{z}$  iiij; atropia $\bar{e}$  sulph., gr.  $\frac{1}{70}$ . chloroformi, gtt. xij; syr. tolu, syr. picis liqid.  $\bar{a}\bar{a}$  q. s. fl.  $\mathfrak{z}$  j; aqua $\bar{e}$ , ad. q. s. fl.  $\mathfrak{z}$  iv. M. Sig. One teaspoonful every three hours.

For the purpose of aiding digestion, and as a general tonic the following will be found useful:  $\mathcal{R}$ . Acid. phosphorici (dil.); acid. nitromuriatic. (dil.); acid. sulphuric, aromat.; tinct. ferri chloridi,  $\bar{a}\bar{a}$  fl.  $\mathfrak{z}$  ss. M. Sig. Thirty drops in sweetened water after each meal three times a day.

The diet should be exceedingly liberal, although no food must be allowed which is likely to disagree. Our main reliance must be placed on rich milk, soup, oatmeal, beef, mutton and other kinds of nutritious food. At no time during the treatment is it necessary to confine the child within doors during pleasant weather. Indeed, outdoor exercises should be encouraged as much as possible.—*Id. Med. Journal.*

#### Ignipuncture of the Tonsils.

M. SAINT GERMAIN, in a communication to the Section on Diseases of Children of the Ninth International Medical Congress, says:



Tonsillotomy is not free from the possibility of fatal accidents. To mention uncontrollable hemorrhage and invasion of the wound by diphtheria is to make it clear that the operation is not so harmless as has been supposed.

Krishaber tried the thermo-cautery, but this application was so superficial that treatment was indefinitely prolonged.

I operate with the aid of a modified Smith's gag, thrusting the thermo-cautery into the tonsil to the depth of three-eighths of an inch. Two to four applications, at weekly intervals, reduce the tonsil to a shrivelled and insignificant stump.

*Preputial Dilatation*, the same surgeon says, may well take the place of circumcision, which is sometimes followed by serious hemorrhage, diphtheritic invasion of the wound, or partial gangrene.

I reserve circumcision for those cases alone (about one in three hundred) in which dilatation is impracticable. I use a two bladed dilator instead of the three blades of Nélaton, introducing it and slowly expanding the orifice. The operation is finished by separating the adhesions with a grooved director, and is followed by daily massage, in which the glans is alternately exposed and covered.

With both of these simple procedures I have always secured excellent and durable results, and have met with no untoward complication. In view of the great frequency of these two classes of cases, am I not right in presenting these simple and effective procedures as a surgical advance?—*St. Louis Med. and Surg. Journal*.

#### Chorea in Childhood.

BECKER (*Arbh. f. Kinderh.*):

By chorea minor is meant a psychomotor neurosis, in which sudden, invol-

untary, aimless movements are made, which include a psychical element to a greater or less degree. The author's observations have led him to divide the cases which he has seen into two groups, representing: 1. Idiopathic chorea, in which no etiological factor is perceptible. 2. Sympathetic chorea, which occurs in connection with other diseases.

Its frequency as compared with other diseases among children is insignificant. Of ten thousand cases of disease in children at Baginsky's clinic in Berlin, there were but twenty-one cases of chorea. It occurs rather more frequently in cold than in warm weather, and also at the time of puberty with greater frequency than at other periods. Females are more commonly affected with the disease than males. With regard to etiology, articular rheumatism frequently stands in a causal relation, and diphtheria less frequently. The assumptions of Roger and Gerhardt as to etiology led the author to the consideration of the following questions: 1. Does chorea occur as a result of rheumatism? 2. Does rheumatism occur as a result of chorea? 3. Do heart-affections occur as a result of chorea? 4. Does chorea occur as the result of heart-affections? An analysis of these questions led to the following answers: 1. Chorea occurs so frequently after rheumatism that the latter must be considered an etiological factor of the former. 2. It could not be found that articular rheumatism was at all dependent upon chorea. 3. Heart affections were found in patients who had previously suffered from chorea. They were readily attributable to anæmia, however, excepting in the cases in which articular rheumatism had preceded. 4. Cases of chorea were found occurring subsequently to or simultaneously with heart affections, but in all these cases there was a history of heart disease.

In the twenty-one cases which the author studied the disease came on for the most part without prodromata, the symptoms at first being rather mild in character. Its cause was always either subacute or chronic. The movements usually began in a single group of muscles, or part of the body, increased in extent and intensity, and finally, in most cases, involved the entire muscular structure. Gradually the intensity diminished, and finally the movements would cease altogether. Recurrences of this disease are not infrequent. In three of the author's twenty-one cases there was recurrence, and the patients were all females. Germain-Sée was quoted to the effect that if the disease continues longer than sixty-nine days a recurrence is likely to take place. The average duration of the disease from the comparison of a large number of cases was found to be fifty-eight days. — *Archiv. Pediatrics.*

#### Recent Contributions to the Subject of Vaccinia.

THE investigations recently made by Warlomont and Hugues, have not led to the desired results, but to negative ones. Though it was assumed as a positive fact that horses and cattle have vaccinia, and that horse-pox and cow-pox and variola have the same infective element as human variola, the experiments made yielded negative results. With horses sixteen experiments were made, lymph from children and cows being injected into various parts of their bodies. The results were negative, as also in twenty-four other experiments upon animals, fourteen of which were made by inoculation, six by injection into the veins, and four by injection into the cellular tissue. These experiments seemed to prove that the organism of the horse is unsuitable for the

cultivation of vaccinia. The experiments were carefully made, and the author's conclusions were as follows :

1. Neither horses nor cows nor any other kind of animals can be considered, in an accurate sense, as vaccination animals (*Impfthiere*), for every animal must be inoculated with vaccinia before it can develop it.

2. The original germ of vaccinia, with reference to horses and cattle, does not differ from that of variola. The latter is introduced into the animal's system, it becomes modified, and is finally developed as vaccinia.

3. The modification in horses is less decided than in cows, hence horse-pox is more like variola than is cow-pox.

4. Horses furnish a bad medium for the cultivation of vaccinia, but this should not induce one to repudiate animal vaccinia, for it simply means that this disease is propagated by weaker germs than the organism of the horse is in position to develop.

5. Artificial impregnation of horses with variola or vaccinia by means of inoculation or injection appears to be followed by no external phenomena, and the same is true of cows. Immunity must be obtained by such an inoculation, but as there is little or no reaction, the inoculation is apparently deprived of all significance as a means of control.

The results of nineteen experiments which the authors made upon cattle are summarized as follows :

1. The identity of horse-pox, cow-pox, and human variola has not yet been demonstrated experimentally.

2. The organism of horses is poorly adapted to the cultivation of vaccinia.

3. Cattle can acquire immunity from vaccinia by inoculation, the veins and lymph vessels being involved even when there are no external phenomena.

4. If inoculation is accomplished by means of subcutaneous injections into the cellular tissue, it will result in a swelling, which may be quite extensive; but it will not have the peculiarities of the swellings in vaccinia.

5. Immunity from vaccinia, which is acquired by introduction of vaccine, seems also to indicate immunity from foot-and-mouth disease.—*Arch. Pediat.*

### OBSTETRICS.

#### Treatment of the Umbilical Cord.

DR. A. JACOBI gives the following advice with reference to the treatment of the cord :

If the ligature be thin, it is liable to cut through the walls of the blood vessels prematurely ; if too thick, it may not suffice to compress them satisfactorily. It ought to be applied at a distance of from one and a half to two and a half inches from the abdominal wall. Not nearer, in order to avoid the effect of the immense muscular power of the umbilical arteries inside the abdominal cavity. A second ligature is placed about an inch from the first, and the cord cut between them. It is a good rule, which must surely be adhered to in every case of thick cord, to apply an additional ligature between the first and the abdominal wall, to avoid hemorrhage from the insufficiently compressed arteries, which may take place after the cord has commenced to shrink. The abdominal end of the cord is then wrapped up in a dry and soft piece of linen, lint, or cotton, placed on the left side of the abdomen, and fastened, by means of a soft flannel bandage, which is wide enough to cover the larger part of the chest and all of the abdomen, so as not to slip.

In wrapping up the end of the cord no oil must be used. Warmth and

dryness favor mummification ; moisture and exclusion of air, gangrene. This holds good also for the cord when it is separated from the living baby by an additional ligature, and in the dead. Thus, the former forensic axiom, that a dry cord proved life, which prevailed for decades after Mackel had demonstrated its fallacy as early as 1853, is absolutely worthless. Thus, fatty substances, and moisture of any kind, must be avoided as much as possible. Powdered subnitrate of bismuth or oxide of zinc, or iodoform, or salicylic acid, one part with ten parts of starch, may be dusted round the insertion of the cord and over the stump daily. The latter application is not necessarily useless (from the point of view of antiseptis), for the separation of the cord is a gradual one, and not uniform through the whole thickness of the amnion and the three blood vessels.

The size of sore stump and the rapidity or slowness of cicatrization depend upon the thickness of the cord, the intensity of the line of demarcation, and the reactive inflammation. The latter are most marked in vigorous infants. As a rule, the surface is dry a few days after the falling of the cord, and cicatrization complete within twelve or fifteen days after birth. This normal process is, however, disturbed by careless handling, local irritation, and infectious influences. In these cases there is a serous or purulent secretion, and cicatrization may be deferred for many weeks. Under these circumstances local treatment is required. Carbolic acid ought to be avoided, for the newly born infant is easily influenced by its poisonous properties. Solutions of lead, zinc, or alum answer quite well. As before, however, I recommend the powders of zinc oxide, bismuth subnitrate, alum with starch, salicylic acid

with starch, or iodoform. Such measures will always prove helpful ; to omit them in times of erysipelas or diphtheria is unpardonable. Perchloride of iron, or subsulphate of iron, must not be used. Under the hard coagulation formed by its application over the whole wound secretions will accumulate, cannot escape, are absorbed, and produce sepsis. I have seen babies die from applications of iron to the umbilical stump, as I know of women dying for the same reason when the hemorrhages from their uteri or from the lacerated vaginæ were maltreated in the same manner.—*Archives of Pediatrics.*

#### Improved Obstetric Forceps.

DR. W. S. STEWART exhibited before the Philadelphia Obstetrical Society an improved obstetric forceps. He said :

It is not my intention to consume the time of this Society by giving the history of the origin and use of the obstetric forceps, nor to enter into a general discussion of its merits and demerits. I take it for granted that there is a large majority admitting their necessity, and the great benefit they are to the lying-in patient. Therefore, I will content myself in endeavoring to point out the advantage of having parallel handles, so that the application of either blade first can be made at will, as the exigencies of the case may require. It is in order to meet this necessity, which I have more than once experienced, that I have the honor and privilege of presenting, for your consideration, an instrument which will demonstrate its superiority, and consequently can be relied on in almost any emergency. The improvement is not restricted to any special form of blade, but can as readily be applied to the straight as the curved, its use being equally effective with either form.

The first object for which I was most solicitous, was to be able to have an instrument which could be used in presentation, where it might be desirable to apply the second blade first, as sometimes in the second position of the head, when jammed into the cavity of the pelvis and rotation to the antero-posterior diameter has been prevented by a narrow, contracted passage. In all such cases there will be no difficulty in applying and adjusting the first blade, but occasionally it is impossible to apply the second in this condition of the presentation, the only remedy being to reverse the order by applying the second blade first, running the risk of injury to both mother and child in the re-crossing of the handles in order that they may be locked before making traction. This we have overcome by having the handles made parallel to each other and without overlapping, as in the ordinary instrument. Each handle has its own independent lock, the two being connected by a plain bar which will admit of adjustment, no matter which blade is applied first.

To overcome the danger of slipping, and to secure the grasp on the fetus, it was necessary to devise some method of reversing the direction of the handles in order that traction could be applied. To accomplish this, a double lever was devised ; one part on each handle and each working on the same pivot or fulcrum ; to this the traction is applied, resulting in a power perhaps superior to anything we could have expected. The compression to the fetus is no longer in proportion to the powers in the grip of the hand applied to the instrument, as in the cross handles, but is regulated simply by the resistance to be overcome, and will beautifully illustrate the mathematical relationship between the force and the



resistance; consequently all fear of slipping of the instrument is obviated, and the only force that is necessary to be applied is for the delivery of the fetus. The compression is, however, controlled by a shoulder which is made on the toggle joint, preventing any risk to the child, and its limit corresponding to the position of the blades of the cross handle instrument when the handles are in close apposition.

Should there be any irregularity of application and consequent difficulty in locking, we have devised a coned hub with a winged nut which, though the handles may be at an angle of thirty degrees, enables us to adjust them accurately.

The advantages of this improvement, as experience has demonstrated, are summarized as follows: 1. The application of either blade first. 2. The impossibility of the blades slipping when properly applied. 3. Moderate and even compression, the degree of compression being regulated by the amount of resistance. 4. Greater facility for making traction.

*Discussion.*—Dr. H. A. Kelly had examined these instruments with a great deal of interest and was surprised how the difficulty of parallel handles had been overcome.

Dr. Baldwin was not particularly fond of using forceps of any kind, and had often seen a head delivered spontaneously, on which the use of instruments had been urged. However, there were cases where the instrument became necessary, and in such cases it was desirable to have as perfect a forceps as possible. In the forceps presented he had no objection to make to the parallelism of the handles, but thought that a very serious objection was to be found in the so-called toggle joint. With this instrument as it stood, there

was no possible way of regulating the compression force applied to the child's head, and although Dr. Stewart had not yet marked or injured a child, he would surely do so sooner or later, if he continued their use. He thought with Dr. Kelly that the axis traction principle should be applied to modern obstetric forceps.

Dr. G. E. Shoemaker had, on a previous occasion, called attention to the dangerous compression power developed by the toggle joint, spoken of by the last speaker. He thought that to make the instrument safe there should be an adjustable attachment, such, for instance, as a sliding plug about the handles, to limit at will the compression force, as the present shoulder was fixed and was too far back.—*Obstetric Gazette.*

#### Case of Cæsarean Section.

Dr. HOWARD A. KELLY (*Med. and Surg. Reporter*) performed his second Cæsarean section, May 30. The subject of the first operation, which was noticed in the *Reporter* May 5, 1888, has recovered. The second operation was done for the relative indication. The patient had given birth to two children previously; the first was delivered by crushing the head with the forceps, the second was not fully developed and neither lived. The patient has a flat rachitic pelvis, with a true conjugate estimated at about two and three-quarter inches. Craniotomy was not done because of the patient's religious belief, as she is a Roman Catholic. The child, a healthy seven-pound girl, was delivered in two minutes, and the whole operation completed in thirty-two minutes. Seven deep and fifteen superficial sero-serous sutures were used to close the uterine incision. The patient was put to bed in good condition. At last accounts she was doing well.

## DISEASES OF WOMEN.

## Intra-Ligamentary Cyst.

DR. W. GOODELL, in a paper on this subject, published in *Journal American Association*, said substantially—

That the three abdominal cysts most commonly met with are the true ovarian, the common parovarian and the intra-ligamentary cysts.

The ovarian is typically multilocular, has a pedicle, and starts from the stroma of the ovary, where the ovary is found. It always grows into the peritoneal cavity, and is probably due to a follicular degeneration of the ovaries—which explains its multilocular feature.

The common variety of so-called parovarian cyst is typically unilocular, usually unadherent and thin walled. It does not bear inside papillary growths, but it contains a clear limpid fluid. It is wholly extraovarian, the corresponding ovary being found either pendant apart from it or else plastered upon its walls, but yet wholly distinct. The lining membrane of this cyst being identical with that of the tubes of the parovarium, its origin is referred by pathologists to this fetal relic. To account for its single chamber, it is supposed to originate from some detached loop of the tubes; or, especially, from a little cyst always found at the outer end of the horizontal tube of the parovarium.

The third variety of cyst is called the intra ligamentary, sessile or encapsulated cyst. From its site between the folds of the broad ligament, from its papillary ingrowths and its quasi-malignant nature, and also from the difficulties attending its extirpation, it deserves special description and needs a special treatment.

There are two kinds of cysts encapsulated by the broad ligament: The one is a unilocular, papillomatous cyst; the

other a multilocular papillomatous cyst. Both contain clear fluid. The former is probably a cystic degeneration of one of the imbedded vertical tubes of the parovarium, which represents the rudimentary sexual remnants of the Wolffian body. It is usually more encapsulated by the broad ligament than the multilocular variety, but the connective tissue is looser and less vascular.

The multilocular intra-ligamentary cyst has but a few daughter cysts, each cyst distended by a clear limpid fluid and containing exuberant firm papillomatous growths. Its proneness to ingraft itself upon migratory organs, and its firm and vascular union to its capsule of broad ligament, make its removal far more difficult than that of the unilocular variety. Its origin is questionable, although the presence of papular ingrowths would point to fetal tubular relics as the source. Some attribute it to cystic degeneration of supplemental ovarian tissue often found imbedded in the broad ligament at a distance from the ovary. Others attribute it to the tubular relics in the paro-öphoron. Lastly, Doron attributes it to stray fetal relics in the hilum of the ovary. As this theory met every characteristic of this tumor, viz.: the papillary ingrowth, its multilocular character and its investment by the broad ligament, Dr. Goodell was inclined to accept it. The tumor did not develop into the peritoneal cavity, but, growing inwards and into the broad ligament, it parted asunder the true peritoneal folds of the latter. As it burrowed upward it stripped off the peritoneal coat of the womb and bladder, fusing itself to these now naked organs by continuity of structure, and not by mere contiguity. Hence, in the operation for its removal, the womb was liable to be badly wounded and the bladder torn open. Burrowing downward it

uncovered and soldered itself to the ureters, the great pelvic vessels and the rectum, making its separation here very dangerous and sometimes impossible. Mounting upward from this region, the sac goes in between the two folds of the mesentery, mesocolon and mesocæcum, and prying them ingrafts itself upon these viscera. In these cases a portion of the cyst must be left behind, as the union is too integral to be severed. Another characteristic is the proneness of the cyst wall to burst and to infect the whole peritoneal cavity with papillomatous poison. Whether this is always malignant is doubtful, for he had seen patients wholly recover, whose entire peritoneal cavity was studded with papillary growths. On the other hand, he had had them die in a few months after the operation.

The signs of an intra-ligamentary cyst were immobility and low descent of the sac, vertical elongation of womb and bladder, embarrassment in micturition and in defecation, pelvic pains, unsymmetrical abdominal development, and resonance on percussion from bowels carried up in front.

The operation for the removal of an intra-ligamentary cyst demands great experience on the part of the physician, and taxes all his pluck. These are the cases which are liable to die either on the table or a few hours afterwards from shock. Formerly, when a cyst was found to be intra-ligamentary, the incision was closed and the case abandoned. Now, thanks to Miner, of Buffalo, the surgeon needs rarely to be foiled.

Since the bladder is often dragged upward, and then lies directly under the line of the incision, great care must be taken not to wound it. The cyst should then be emptied, but it must not be lessened in size by the introduction of the hand and the breaking up of

daughter-cysts, because the flow of blood would be too great, and papillomatous material might escape into the abdominal cavity. For the latter reason the opening made by the trocar should be securely closed. The collapsed sac is now drawn out of the abdomen and the capsule is divided, little by little, in a circle on a level with the edge of the abdominal incision. The sac wall is then enucleated so as to leave an uninjured cup-like cavity. To do this with the least amount of hemorrhage, the incision should begin at the lateral border of the sac, where the spermatic vessels lie. After these are secured, the incision is extended to the site of the womb, where will be found the uterine arteries, which will also be cut and secured either by ligature or by pressure forceps. As the surgeon advances he will have to tie or clamp many blood vessels. The attachment to the womb is left for the last, and it can then usually be brought outside of the abdomen, when it may be often converted into a sort of pedunculated attachment which can be ligated *en masse*. Often the whole sac is shelled out of its capsular nest, without any approach to a pedicle. In the deep portion of the enucleation great care must be taken not to injure the ureters, rectum, or the large pelvic vessels. When firm adhesions to important viscera are met with, the adherent portion of the sac must be cut off and left behind, but its secreting layer should be peeled off.

The vast cavity of the empty capsule is treated in one of the following ways, each aiming to exclude it from the peritoneal cavity: *a*. The edges of the capsular cup are attached to the border of the abdominal incision and a drainage tube is put in. *b*. Through the floor of the intra-ligamentary wound a catch forceps is thrust through into the vagina. There it is made to seize a winged rubber

drainage tube, which is drawn up into the capsular cavity. The edges of the capsule are now trimmed and sewn with gut the one to the other, so as to exclude its cavity from that of the peritoneum.

Whenever neither of these modes can be adopted, one large drainage tube, or even two of them, should be introduced into the pelvic cavity.

Dr. Drysdale said that the paper of Dr. Goodell covers the ground so thoroughly that he could add but little to what had been said. One important point is the extreme thinness of the cyst wall often met with in these cases, which, in his experience, had made it almost impossible to get the cyst away without tearing. Another difficulty peculiar to this form of tumor was the risk of wounding the great blood vessels of the pelvis when the cyst had burrowed under or become incorporated with them.

Dr. Drysdale understood Dr. Goodell to say that he believed that all operators, in removing these tumors, had met with the accident of opening the bladder. He was glad to say that in an experience of twenty-six years he had never been so unfortunate as to open that organ. Dr. Drysdale believed that true papillomata always prove fatal. The faith of some writers in the curability of these growths is founded upon the error of mistaking a benign growth which resembles them for true malignant papillomata. These innocent masses of papillary granulations, in fact, so closely resemble the malignant that the microscope alone can distinguish one from the other.

Dr. J. Price has not had experience in the removal of this form of abdominal growth. He is pleased with the free use Dr. Goodell makes of drainage tubes; he himself has used three at one time in complicated operations. He is wishing for some form of perfected continuous

irrigation applicable to the after treatment of abdominal section. He has had his greatest experience in the removal of pus tubes, and has met with a mixed ovarian and parovarian growth in many of his patients. Mr. Tait had described two varieties of papillomatous cysts, one having virulent characters and the other benign.

Dr. B. F. Baer has had some experience with this class of tumor. He has operated on at least four cases so far as he can recall at this moment, but they had not been quite so severe nor the tumors so large as the typical case described by Dr. Goodell, probably because they had been removed earlier.

The first case was one of a double tumor of very rapid growth, sent to him by Dr. Gabel, of York, Pa. The patient had been perfectly well so far as she knew eight months previously, but at that time she suffered from an attack of acute urethritis and vaginitis, followed by a burning pain in both ovarian regions. Soon she found that the abdomen was enlarging, especially on the right side. Seven months after this date, when he first saw the patient, she was much emaciated, and the abdomen was greatly distended by an irregular, fluctuating tumor. There was a deep sulcus extending from the lower border of the tumor diagonally upwards. The uterus was soft, high up and drawn to the left. When the abdomen was opened two large tumors were revealed. The left was tapped and removed first, because it was uppermost, it had a short, thick pedicle, which was transfixed, ligated and dropped. The larger tumor was next emptied, and it was now found that it had a deep pelvic attachment. Further examination showed that the tumor was subperitoneal and closely adherent to the uterus, as well as to all the pelvic viscera. Enucleation was



begun, and after a laborious effort, during which considerable bleeding occurred, the tumor was separated, leaving a large open wound in the broad ligament. This was transfixed and tied *en masse* as a pedicle, making a very thick stump. Just as he was about to close the abdominal wound the ligature slipped off. Great hemorrhage followed this, and it was feared the patient would succumb before it could be checked; but by the rapid application of catch forceps one after another it was controlled until ligatures could be placed. The wound in the broad ligament was finally united by placing ten or twelve interrupted silk sutures. After carefully cleansing the abdominal cavity of all clots the incision was closed—without drainage—and the patient put to bed more dead than alive. It was thought that she could not react from the shock, but she rallied and made an excellent recovery, going home on the twenty-third day, in charge of Dr. Gabel. She remains well three years after the operation.

The second case was also a double tumor of rapid growth. One or both of the cysts had burst and probably discharged into the bowel on two occasions before he saw the patient. She presented an appearance of great pallor and emaciation. The abdominal surface was rather symmetrical and fluctuation was very marked. The uterus was drawn high up and it was not freely mobile. When the cyst was exposed it presented a deeper color than that common to the ordinary ovarian cystoma. The cyst wall was thin. After tapping, it was found to have a deep pelvic connection. Enucleation was necessary and a thick pedicle was ligated. It was now found that another smaller tumor existed on the left side. This had a peculiar shape, being elongated and deeply seated in

the pelvis. It was entirely subperitoneal. The peritoneum extended out from the uterus, spreading over the tumor and approaching the abdominal wall as is sometimes seen in a fibroid tumor of the uterus which has pushed that membrane upwards in its growth. The cyst extended along the line of the colon, and at first he was not sure that it was not that organ greatly distended by gas. He soon determined that it contained fluid and that its general appearance was similar to that just removed. The fluid was evacuated, when the cyst collapsed. He hesitated as to the proper course now, because of the broad base and deep attachment of the tumor and its close adhesion to the sigmoid flexure. He first thought of stitching it to the abdominal incision and draining, but he did not, and was sorry soon after that he had not carried out his first idea, for his attempt at enucleation of the tumor was attended by so much hemorrhage, although ligatures were applied freely, that he felt compelled to cease his efforts. He had separated at least six inches of the descending colon from the cyst wall when he found that the latter dipped down so deeply into the pelvic excavation that he concluded that it would be too hazardous to finish the operation. He next tried to strip off the lining membrane, but could not do so safely because of its intimate relation with the large blood vessels and ureter. He finally drew out all that was separated and ligated the entire mass. The stump was dropped and a drainage tube inserted. The patient recovered, but she still has an occasional fistulous opening at the site of the drainage tube. He does not think that this cyst was papillomatous, but it was certainly intra-ligamentous.

In another case he performed secondary ovariectomy for a small tumor of this

character in a case of hystero-epilepsy and metrorrhagia. The upper surface of the tumor looked not unlike the pregnant uterus in color and vascularity. Its outer wall was interlaced with a network of veins, some of them as large as a quill. Exploration with the fingers showed it to be so deep in the pelvis and so closely attached to the uterus, Fallopian tube and broad ligament that they seemed to be one mass, the whole attached by a broad surface to the pelvic floor. The cyst was almost filled with papillary material and it was difficult, on account of adhesions and the deep location of the tumor, to remove it without the escape of some of this material into the peritoneal cavity. Irrigation was not used, nor was drainage, as they did not seem to be necessary. The patient made an excellent recovery from the operation. The after history of this case is of value. A year or two subsequent to Dr. Baer's operation, she consulted Dr. Kelly, who performed a third laparotomy.

A fourth case had been diagnosticated fibroid of the uterus, and it presented some of the symptoms of that disease. The womb seemed to be one with a hard tumor, the size of a child's head, which occupied the right iliac region, and the patient suffered from severe metrorrhagia. The left side was somewhat similarly affected, but not to the same extent. Under ether diagnosis of cystic tumor of the ovaries or broad ligaments was made. Laparotomy confirmed the diagnosis and showed the tumors, broad ligaments and uterus to be one mass. Profiting by his former experience, he began by ligating the Fallopian tube and larger blood vessels before beginning the enucleation, and had no trouble from hemorrhage. By this means the larger tumor on the right side was safely removed. But the one on

the left side was so firmly fixed to the womb that to remove it would have required hysterectomy as well. Even this could not be done because of the pelvic attachments of the tumor. It could not be drawn up. He then tore a small opening through the posterior surface of the broad ligament and shelled out the lining membrane of the enclosed sac. Free hemorrhage occurred, but was controlled by sponge packing. Free drainage was used; the patient recovered.

In still another case operated upon recently he was compelled to remove the right cornu of the womb with the tumor, because of the close connection of the small tumor to that organ and the tube. A similar condition existed on the left side. The tumors were papillary, and the patient had suffered from great hemorrhage at intervals during two years. Drainage was used, and the patient has recovered from the operation.

Dr. Baer did not consider these papillary cases malignant in the sense that they will return after operation; they were certainly not epitheliomata.

#### Asparagus in Metrorrhagia.

DR. AKSUETINA, a local lady doctor, at a meeting of the Don (Novotcherkask) Medical Society, showed the herb of a wild *Asparagus officinalis* (Russ. *sparja*,—most likely derived from the English "sparage"), which is used in Russian popular medicine as a means for arresting flooding. She narrated also a case from her own practice where the drug had been employed with good results. In a multipara, who had missed her menses once, there suddenly appeared metrorrhagia of a moderate intensity, which did not yield to the treatment by cold water injections and absolute rest. By the end of two and a

half weeks the patient, following the suggestion of a friend of hers, resorted to an infusion of asparagus, made of a handful of the herb to two teaspoonfuls of boiling water, one cupful of the infusion to be taken in the morning and another in the evening. The bleeding gradually ceased before night came, and on the next morning a four weeks' fetus, in a semi-putrid state, was expelled. Dr. Aksuetina thinks that asparagus caused an energetic contraction of formerly atonic uterine muscular fibres, and thus enabled the womb to complete separation of an already semi-detached ovum.—*London Medical Record.*

#### Drainage of the Peritoneal Cavity.

M. TERRIER, in the Société de Chirurgie, reported seven successful cases of laparotomy in which drainage of the peritoneal cavity was used, without previous washing out of the cavity. MM. Bouilly and Terrillon, while they have no fear of drainage, think washing out better.—*L'Union Médicale.*

#### Intra-Uterine Treatment of Metritis, Flexions, and Pelvic Inflammation.

POULLET, of Lyons, believes that expectant treatment is perfectly useless in most of these diseases. Active proceedings, which involve dilatation of the cervical canal, are not dangerous when thorough. The uterus readily absorbs poisonous germs, including those which naturally exist in the secretions of the endometrium, so that the grazing of its surface by a sound may cause serious complications. Accidents of this kind will not occur if the uterine cavity be washed out with a sublimate solution; or a cubic centimetre of creasoted glycerine—a good germicide—may be introduced. In cases of chronic endometritis Schröder and others have for many years been

accustomed to dilate the os, scrape the uterine cavity, and disinfect; but the same authorities lay down a rule that scraping and dilatation should never be undertaken when there is evidence of parametritis or perimetritis. Dr. Poulet is of a contrary opinion. Not only are dilatation and scraping safe and valuable in parenchymatous metritis, but they are necessary, in his opinion, when the inflammatory processes have extended to the pelvic peritoneum and connective tissue. Particularly is treatment of this kind needed when the uterus is retroflexed or retroverted, and its fundus fixed by adhesions or by thick inflammatory deposit. From April 1, 1887, to February 1, 1888, Poulet has treated fifty-one cases of metritis or parametritis. Under anæsthesia, the uterine cavity was mopped out, the endometrium scraped, and the uterus restored, when displaced, to its normal position. In one case the temperature rose to  $102.2^{\circ}$ , in none of the others did it exceed  $100.2^{\circ}$ . All recovered. In cases of pelvic abscess, especially the acute form following parturition or abortion, Poulet is particularly careful to wash out the uterine cavity with sublimate, injecting half a dram of creasoted glycerine, to dilate by introducing Hegar's bougies, to scrape the endometrium, and lastly, to swab the cavity with the same preparation of glycerine, before opening the abscess through the vaginal walls.—*World's Medical Review.*

#### New Method for Supplying the Electrolytic Current in Uterine Fibroids.

DR. A. B. CARPENTER (*Medical and Surgical Reporter*) spoke of the difficulty of keeping the ordinary physicians' batteries in good running order, and therefore devised a method of supplying the electric current at any time desired in the proper strength. He took his

current directly from the street, using the electric current as furnished by the Edison light for this purpose. The Brush light is too dangerous, but the Edison system, which furnished an electric intensity of 100-110 volts, will not prove dangerous even with the entire strength outside of the rheostat.

The author exhibited the working of his apparatus, with the wires attached from the street.

In opening the discussion, Dr. Newman said that the electric current has always an electrolytic action, the amount depending on the strength used. If the current be small, the current will act as an absorbent; if large, it may prove destructive. He formerly claimed that a strong current should never be used, but in the light of recent developments he took it all back in considering the treatment of fibroid tumors, the large electrode diffusing the strength of one pole over the whole abdomen, overcoming the destructive tendency of a current of too great an intensity. The result will depend upon the concentration of the current upon the electrode. It is true that operators differ as regards the *modus operandi* in their treatment of tumors by electricity. Freeman, for instance, achieved good results with pointed needles. The speaker would, however, warn beginners against using needles with fine points, even in intra-uterine puncture, because it might be followed by fatal results. He himself used an intra-uterine sound, insulated, except at the end, to the depth of the uterus. This he attached to the negative pole and gradually passed it into the womb. If the canal be tortuous, this passing in may, at first, be difficult, but gradually the sound will enter deeper. The opponents to the use of electricity for this purpose say that it does not always cure them. He would

reply that the object is not to entirely remove them, but to diminish the size as much as possible, so that they become harmless. If more than this can be done, so much the better.

Dr. Marcy, of Boston, said that for his knowledge of the use of galvanism, for its electrolytic action in tumors, he was first indebted to Dr. Cutter, of New York, whose pupil he was. At that time he saw cases benefited by this treatment, but also saw occasionally dangerous results. He then discarded its use, and was with great difficulty reconverted, until he heard of Apostoli's great success. He then again supplied himself with an electric apparatus, and since then had had unqualified success. If we could utilize the street lamps for this purpose, he regarded it as a great improvement, altogether a new departure. In conclusion, he greatly lauded the advances made by the two gentlemen in this direction, throwing additional lustre upon American gynecology.

Dr. Martin, in reply to a question, stated that the only improvement in his animal membrane electrode consisted in its greater cleanliness and handiness. His dynamo enabled him not only to obtain high tension, but also a caustery current.

Dr. Carpenter, in concluding the discussion, stated that he always began with a low dosage. He thought it better to employ a longer sitting and reduction of strength in the beginning. Antiseptic precautions should also be instituted. He laid special emphasis upon the importance of rest after each seance. It is his practice to keep his patients at least one hour in his office before permitting them to leave. The great relief afforded at each sitting will often induce women to visit their friends and thereby frequently set at naught all good effects obtained. In conclusion, he narrated an



intractable case of vesical irritation, in Cincinnati, which was truly in a pitiful condition. After four treatments the incontinence of urine disappeared and the patient became greatly relieved.

#### **Nervous Symptoms Arising from Displacement of the Uterus and its Appendages.**

DR. GRACE PECKHAM, in a communication on this subject to the *Medical Record*, concludes as follows:

From an inspection of these cases, as well as looking through the very many others which were not sufficiently typical to come under classification, the following deductions have been made.

1. Nervous disturbance outside of the pelvis is not nearly as frequent in disease of the uterus and its appendages as is generally believed. The impression that one severe case makes effaces that of dozens of simpler ones. Moreover, gynecologists who are men, are apt to meet only the severer cases, since women suffer long and in silence before undertaking a treatment which does such violence to their natural modesty. The eminent specialists who have done most of the writing on this subject encounter the most severe and difficult cases, and their object, often, in writing, is to present peculiar and extraordinary cases.

2. It has been shown that mere mechanical displacements give rise to almost no disturbance in complete prolapsus. In the other degrees of prolapsus the pain comes from the pulling and stretching of the tissues. Retroflexion occasions the most nervous disturbance outside of the pelvis.

3. It can be seen that the amount of disturbance is in every way proportioned to the amount of uterine tissue involved, and the length of time the disease has continued.

4. It is plainly shown that the reflex nervous symptoms are no more severe

nor extensive that arise from displacements and inflammatory conditions of the uterus and its appendages than would be produced by pathological conditions of the same extent and the same chronic character in other parts of the body. When these are present a previous neuropathic tendency, either acquired or inherited, probably has existed, and the uterine trouble is generally extensive and of an aggravated nature, which, acting on the central nervous system, produces a display of disturbed innervation at the periphery, or of disturbed cerebration, which results in neuralgias or hysterias.

5. In these studies the effects of uterine trouble upon the eyes have been carefully considered. Three cases, two of endometritis and one of inflammation of the broad ligaments, are found. I have met others, but in these, and looking over the literature, I have reached the conclusion that the eye trouble is generally due to anæmia and general asthenia, and it is doubtful if it can be proven that such troubles with the eyes occur more often in uterine diseases than in others which would produce a similar state of anæmia and depression of the general bodily strength.

6. Many nervous symptoms are not present because of uterine disease, but are due to the constipation and anæmia with which it is so often accompanied.

7. Nervous disturbances outside of the pelvis are much more prevalent among the more highly organized women of the higher classes than among those of the lower, who have less time to think of themselves, and much less vivid imaginations.

8. The attention should be called to the fact that sacral neuralgia often simulates uterine disease; the pain is very much like that described in many of the inflammatory conditions with

displacement, and even with ovarian trouble. It is often associated with pain extending down the leg, and pain referred to the sides and the back, and it is also accompanied with general nervousness. I recall, now, three cases of sacral neuralgia in which the nerves were tender at their exit on the right side, and the great pain complained of was on the left side.—*Medical and Surgical Reporter.*

### DISEASES OF CHILDREN.

#### Rectal Polypus.

DR. SOPHIA PRESLEY, says in the *Polyclinic* :

Willie C., a child six years of age, pale and sallow, who had always been delicate and of a constipated habit, was brought to my office by his mother, who said that he had been suffering from piles for about three months. That whenever he had an evacuation from the bowels there was blood, partially covering the stool. This blood caused her to make an examination of the parts, when, invariably, she found a fleshy mass as large as a cherry protruding from the anus. After a short time it would be drawn in and not be visible until after the next evacuation. She had previously consulted another physician, who considered the case one of hemorrhoids and treated it with various ointments, but without any beneficial results.

I made an examination, but could detect nothing abnormal in appearance nor by the finger. To help correct the torpidity of the liver and to overcome the constipation, I ordered:  $\mathcal{R}$ . Hydrarg. chlor. mitis., gr. ij ; pulv. ipecac, gr. ss ; sacch. lact., gr. xx ; M. Sig.—One powder to be taken every two hours.

After taking the powders the child was to take a dose of magnesia and then

continue with the following mixture :  $\mathcal{R}$ . Acid. tartaric, gr. j. ; pepsin (Jensen's), gr. xxiv ; glycerin ; aq. menth. pip.,  $\mathfrak{aa}$  f  $\mathfrak{z}$  iss. M. Sig.—Teaspoonful after each meal.

To be used locally :  $\mathcal{R}$ . Unguent. belladonnæ ; unguent. acid. tannic.,  $\mathfrak{aa}$   $\mathfrak{z}$  ss. M. Sig.—To be applied night and morning in and about the anus.

At the expiration of a week he was brighter and better, generally, but that the bleeding still continued, and the "lump" appeared at each evacuation as it had done previously.

I asked her to send for me when she again noticed the protrusion. I was called the next morning, and, upon examination, found a purplish-red polypus, as large as a cherry, protruding from the anus ; the growth was attached just above the internal sphincter, on the posterior wall of the rectum, by a pedicle about  $\frac{1}{6}$  of an inch in diameter. I removed the polypus by cutting the pedicle, and to make perfectly sure there would be no bleeding, I injected about two tablespoonfuls of ext. hamamelis virginia. fld., diluted with one of water, into the rectum, and ordered more of the mixture to be used in the same way should any bleeding be noticed. The child was to be kept perfectly quiet all day.

I left the house satisfied that I had performed a successful operation and had rendered hemorrhage impossible ; but when I reached home, I found that a messenger had been there two hours before. When I reached my patient he was almost in a state of collapse from loss of blood, but from outward and visible signs, the bleeding had ceased.

Soon after I left in the morning, the child had an inclination to use the commode, and while seated thereon his extreme pallor frightened the nurse, who quickly laid him on the lounge ; about

half a teacupful of blood was discovered in the vessel. His mother immediately injected the hamamelis, with apparent good effect.

Recognizing the grave aspect of the case, I felt the necessity of keeping up the strength of the patient and preventing a recurrence of the hemorrhage, while at the same time warding off septic symptoms. This I endeavored to do by administering quinine, in one-grain doses, three times a day, giving as nourishment : Milk, milk punch, wine, beef tea and broths of various kinds. About the third day his skin presented a jaundiced appearance, and there was distention of the abdomen, without tenderness.

I now saw the importance of freeing the intestines from the accumulated blood and fecal matter, and administered a large dose of castor oil, but without effect ; another dose, same result ; then an enema of warm sweet oil, which he retained, and an hour later one of warm water, after which he had a passage of fetid, coagulated blood. For fully three days these bloody, offensive evacuations continued at frequent intervals. At the expiration of that time the patient showed signs of decided improvement, although the unhealthy appearance of the skin remained. The vigorous use of proper stimulants, tonics and nourishments gradually induced a more healthy condition, and in a reasonable length of time he recovered his original strength, and has since (a period of almost three years) shown no symptoms indicating a recurrence of the trouble.

Although the operation was successful in the end, all the accompanying symptoms convinced me that, to have prevented hemorrhage and its consequences, I should have ligated the pedicle.

#### On the Neurotic Treatment of Summer Diarrhea and Cholera Infantum.

DR. ALEXANDER HARKIN, of Belfast, England, writes as follows in the *Boston Medical and Surgical Journal* :

The cramps and spasms, the great depression of the nervous system and the powers of life, the convulsions of so frequent occurrence, and the stage of collapse which so often terminates the infant's existence, all betray the neurotic origin of the disease, and a lesion of the nervous centres.

According to Claude Bernard, the stage of collapse in cholera is referable to great irritation of the sympathetic nervous system, and, as most authorities regard choleric, choleraic diarrhea, cholera infantum, cholera nostras, and Asiatic cholera as one in nature, but only differing in degree, if we accept the dictum of the great physiologist in the major, we may fairly apply its teachings to the other divisions of the class. Having for many years been converted to his views on this subject, I have formulated my plan of treatment accordingly, and, knowing that the pneumogastric is the antagonist and controller of the sympathetic nerve in the abdomen, I invoke the action of that spinal nerve by applying over its sheath in the neck a rapidly acting vesicant, the liquor epispasticus of the British Pharmacopœia, with the almost uniform result, that as soon as its powerful irritation is experienced, all vomiting, purging, and cramps immediately cease, natural heat returns to the body, the patient, be he child or adult, generally falls over asleep, and finally awakes, in a few hours, quite free from danger. I apply the fluid with a camel's hair pencil from behind the ear, as far as the angle of the lower jaw, over a space three inches in length and one in breadth ; a blister rises in five hours, which I dress with cotton-wool.

In the preliminary stage I enjoin absolute repose, with warmth to the surface and extremities; total abstention from mother's and cow's milk; order, when available condensed milk, or as an alternative, arrow-root prepared with water, and the free addition thereto of port wine fairly sweetened; it is wonderful how much wine so administered an infant of a few months will both require and consume; and beef tea carefully freed from fat; then counter-irritation over the abdomen by poultices and sinapisms; and failing these remedies, a small blister over the region of the liver. This latter procedure will often be found most salutary and successful. As internal remedies, having long since discarded the old-fashioned chalk mixture and astringent tinctures, my chief reliance is placed on dilute sulphuric acid, with or without tincture of opium. If given alone, the acid may be taken after every loose motion; if with laudanum, then in regulated and specific doses. One argument for its use derived from recent speculation may be advanced, namely, that the microbes, to whose influence so much of the choleraic discharges are attributed cannot live in an acid medium, but perish at once. Of course, if milk be persisted in, as an article of food, the acid mixture will be the cause of increased griping and pain.

The simplicity and safety of my plan of treatment has been thoroughly tested by myself and many others for several years past, and might be expected to commend itself in the cure of a class of diseases, so little amenable to ordinary medication. But personal experience in a profession noted for great caution in the acceptance of new proposals, and even open sometimes to the charge of so-called scientific scepticism, is not always sufficient.

### The Surgical Treatment of Empyema in Children.

DR. D. A. K. STEELE, in a paper read before the American Medical Association, said:

In the consideration of its surgical treatment we must remember the surgical maxim that "wherever we have a pus collection it must be evacuated in the speediest, safest, and most thorough manner." In the majority of cases it is my belief that a purulent pleuritis is due to auto-infection of a more or less limited area of the inflamed or damaged pleura through the medium of the general circulation; the pus microbe thereby gaining entrance and commencing its destructive action upon tissues which otherwise would only be the seat of a simple pleuritis. Other methods of infection are the use of unclean aspirating needles; rupture of the bronchus; extension of a septic pneumonia; secondary infection from the primary foci in some other point of the body; tubercular infection, etc. Empyema, if left to itself, may terminate in recovery in one of three ways, according to L. Emmet Holt—I, by spontaneous absorption of the purulent effusion; 2, by evacuation through the bronchus; 3, by opening externally through the intercostal muscles; but when left to nature the mortality is appalling. Rilliet and Barthez mention 33 cases, with 4 recoveries, 21 deaths, and 8 not accounted for.

In regard to the surgical treatment, no absolute rule can be laid down for the management of all cases.

We have a choice of operations from the following: For example, we may resort 1, to aspiration; 2, aspiration and washing out of the cavity with an antiseptic solution; 3, thoracentesis with trocar and canula; 4, thoracentesis with sub-aqueous drainage; 5, simple incision; 6, simple incision and drainage; 7,



simple incision with through and through drainage, with or without antiseptic precautions; 8, subperiosteal resection of rib and drainage; 9, thoracoplasty (Estlander's operation); 10, perflation. Each of these various methods will give good results. As a matter of fact, as practical surgeons, we may confine ourselves to the relative merits of but two of these methods—aspiration and free incision with drainage. There is no question but that in a certain minority of cases in children, simple aspiration once or twice repeated, will effect a permanent and satisfactory cure. Aspiration has the advantage of being simple, safe, and occasionally curative; but if we find the fluid really accumulates, or septic symptoms are developed, then a free incision with drainage is imperatively demanded. Aspiration has the disadvantage of leaving a small amount of pus for reabsorption, or which may become an inspissated residuum that will result in a secondary abscess in after life. Surgically considered, it is not as perfect an operation, or as scientific a procedure, as evacuation by free incision and the introduction of a large size drainage tube. Of 121 cases treated by aspiration alone, 23, or 19 per cent., were cured, six died, and the rest came to some other treatment, usually incision. In regard to Ewart's method of perflation, reported last year, I have no personal experience.

In conclusion, therefore, I may summarize my observations as follows:

1. The surgical treatment of empyema in children is eminently satisfactory and yields better results than in adults.

2. Multiple hypodermic aspirations are necessary to perfect a diagnosis, and should always be resorted to in cases of thoracic disease about which there is any element of doubt, especially in cases of pneumonia that exceed the usual period and become "old-monia."

3. Aspiration cures a small minority of cases and should always precede a more radical operation, especially in localized empyemas.

4. Free incision and drainage, with local anæsthesia, under strict antiseptic precautions, gives the most satisfactory results in the majority of cases.

5. Subperiosteal resection of the rib is sometimes necessary to afford perfect drainage.

6. Thoracoplasty is rarely required in children.

7. Other methods of treatment should be resorted to for special cases or circumstances.

8. Early incision, perfect drainage, and complete antisepsis should be the rule.—*Med. and Surg. Reporter.*

#### **Treatment of Meningitis in Children.**

For genuine meningitis of the raving type:

Two to ten leeches for children of from one to four years; from two to three hundred for older children.—CHARPENTIER.

Two leeches on the cranial sutures in all young children.—CURVEILHIER.

Two leeches on the mastoid apophyses succeeded by two others, until faintness ensues.—MAXWELL.

Cold effusions on the shaven head. Sprinkling of the head for from ten to fifteen minutes with ice-water.—HEIN.

Continual irrigation by means of a pail of water suspended over the bed.—PIET.

Compresses soaked in cold water; the applications not to be discontinued while the symptoms of inflammation last, but they should be interrupted if coma or weakness ensues.—RILLIET and BARTHEZ.

In case of coma or weakness:

Tepid fumigations.—ROMBERG.

Lukewarm poultices.—GUERSANT.

A blister on the head.—GUERSANT.

Croton oil 10 to 30. Rubbing of the head.—R. and B.

If the inflammation is acute at the outset: Croton oil, 11; pulv. sugar, 8; pulv. gum arabic, tinct. cardamon water, āā 1.5; water, 64. Sig.—One teaspoonful every quarter of an hour. From one to eight will induce abundant stools and a reaction.—DELACOUR.

Purgative injections.—ABERCROMBIE.

Calomel, milk sugar, āā 0.50–0.70. In ten doses; one each hour till symptoms of enteritis follow, which are controlled by inunctions of oil and by poultices. This treatment, energetically used at the very outset, is the only one which seems to me to control the evil to a certainty.—GOELIS, MAURIN.

If there are convulsions: Ether, 20; syrup, 30; water, 100. Sig.—One teaspoonful every quarter of an hour.—F. H. P.

If convulsions intervene in an epileptic: Oxide of zinc, calomel, pulv. valerian, āā 0.50. In ten doses; one every four hours.—BLACHE.

If convulsions intervene in the case of a child having strangles or other diseases of the skin: Carbonate of potassium, 1. water, 100. Sig.—One teaspoonful to one dessertspoonful every two hours.—HAMILTON.

If convulsions ensue in the case of a hysterical child: Assafoetida, 1-2; yolk of egg, (number) 1; water, 80. For injection.—MILLAR.

Tinct. of soot, 10; water, 100; syrup, 30. Sig.—One teaspoonful every two to four hours.—FULDE.

Epidemic meningitis with severe pain: Opium pulv., 0.10; gum arabic, 0.20; sugar, 0.70. Sig.—Ten doses; one every hour till sleep is secured.—FORGET.

If intermittent fever sets in: Sulph. quin., 1-4. To be rubbed in.—FAURE-VILLARS.

Sulph. quin., 0.50-2. To be injected.—MISTLER.—*Medical Register*.

## OBSTETRICS.

### The Treatment of Placenta Prævia.

DR. ROBERT BARNES (*British Medical Journal*) gives his views thus:

1. The greatest amount of flooding frequently takes place at the commencement of labor, and frequently even before there is any clear indications of labor; generally at what would have been a menstrual period. The cervix is always, from its being near the seat of placental attachment, highly vascular, and is frequently at this stage very rigid. Any attempt to force the hand through this structure at this stage, to detach the whole placenta or to deliver, must be made at the risk of injuring the womb. The dragging the child through the cervix, even when it has not been necessary to pass the hand into the uterus, is a proceeding affording slender chance of life to the child, and fraught with peril to the mother. Hence the indication to pursue a course of treatment as free from violence or precipitation as possible.

2. The entire detachment of the placenta is not necessary, and is not to be depended upon, to arrest the hemorrhage.

3. Since the dilatation of the cervical portion must take place in order to give passage to the child, and since during the earlier stages of this necessary dilatation hemorrhage is liable to occur, it is desirable to expedite this stage as much as possible, avoiding violence.

4. In cases where labor appears imminent with considerable hemorrhage, whilst the os internum uteri is still closed, the arrest of the flooding and the expansion of the os may be promoted by rupturing the membranes and the use of tents.

5. Since a cross presentation or other unfavorable position of the child is apt to impede or destroy the regular contractions of the uterus, which are necessary to arrest the flooding, it is mostly desirable to deliver as soon as the condition of the os uteri will permit.

6. In some cases the simple use of means to excite contraction of the uterus, as rupturing the membranes or the employment of galvanism, may suffice to arrest the hemorrhage.

7. In some cases in which it is observed that the os uteri has moderately expanded, or to a diameter of 1.25 inch or 4 centimeters, the placenta being felt to be detached from the lower zone, and the hemorrhage having ceased, it is not necessary to interfere with the course of labor, now become normal. Hemorrhage rarely persists after full canalisation of the passage.

8. At the critical period, when the total detachment of the placenta or forcible delivery is dangerous or impracticable, the introduction of the index finger through the os and the artificial separation of that portion of the placenta which adheres within the lower zone, is a practicable and safe operation.

9. The artificial detachment of that portion of the placenta which adheres within the lower zone will at once liberate the os internum from those attachments which impede its equable dilatation; and, by facilitating the regular contraction of this segment of the uterus, favor the arrest of hemorrhage, and convert a labor complicated with placenta prævia into a natural labor.

10. The immature uterus, partly paralysed by loss of blood, cannot always be trusted to assume the vigorous action necessary to effect delivery; it is, therefore, necessary to aid canalisation by dilating the cervix artificially; this can be done safely and quickly by my

caoutchouc water dilator. This has come into general use, and the testimony in its favor is conclusive. But one or two German teachers say it is not effective. The bags they have tried must be bad specimens, or skill in using them was wanting.

11. Sufficient dilatation being obtained, delivery may, if necessary, be accelerated by forceps, by turning, or by embryotomy, according to the special indications dictated by the condition of the child. If turning be resorted to, I insist strenuously upon the importance of delivering the after-coming head by the forceps, if there be any difficulty or delay in the passage of the head under manual traction. The forceps so applied takes off the constriction of the imperfectly dilated cervix from the child's neck; and the traction bearing upon the head, facilitating moulding, and takes off all strain from the neck; axis traction also is to be observed. In my hands, this proceeding has contributed materially to the saving of the child.

The measures that come into successive use are:

1. Rupture of the membranes.
2. Apply a firm binder over uterus.
3. A plug may be used to gain time, but it must not be trusted; watch closely.
4. Separate all the placenta that adheres within the lower zone, and observe closely. If no hemorrhage, wait awhile. The uterus may do its own work; if not, dilate the cervix by the water bags. Again pause and observe. If nature fail to deliver, we resort to the forceps or turn.

A good deal of weight is laid upon the treatment of the breasts. Upon entering the hospital, each patient has the breasts washed daily with borax water, 4 per cent. in strength. When a considerable amount of sebaceous secretion is present, upon which the dirt

has collected, they are rubbed with a 4 per cent. borated vaseline to soften the deposit, and then treated as above mentioned.

As soon as the child is born, each of its eyes is treated with a drop of 2 per cent. nitrate of silver solution. The children's mouths are no longer washed, since Professor Epstein, of the Foundling Asylum in Prague, has found that the delicate mucous membrane is apt to be abraded in the washing, and aphthæ form much more readily than upon an unbroken surface. The navels are packed in salicylated cotton, which is changed daily when the child is bathed. Diarrhea and indigestion in newly born children are treated after a plan suggested and used by Professor Epstein. He supposes that the mother's milk, taken into the stomach by the child, and not being digested, undergoes decomposition. Bacteria are produced and act as irritants, exciting a catarrhal inflammation, and keeping it up by their presence. The plan of treatment which he has used for some years past is to wash out the child's stomach, using a small Jaque's catheter, to which are attached a rubber tube and a funnel. The catheter is passed through the mouth and œsophagus into the stomach; the funnel is elevated, and two ounces of plain warm water are poured into the stomach through the funnel, which is then lowered and the water siphoned off. This is repeated several times until the water from the stomach comes away clear. Milk or food is forbidden for twenty-four hours, and the child is given albuminated water, made by mixing water and the white of egg, every two hours, the child taking about sixteen ounces in twenty-four hours. This is given on account of the thirst. The stomach washing is not repeated. When the diarrhea is very severe, small doses

of acetate of lead are given alternately with the albuminated water. Since the adoption of this plan of treatment in this disease the deaths have been much fewer than formerly.

I may here mention incidentally, that the administration of ergot, as a routine treatment to favor firm contractions of the uterus, was abandoned in 1882. The patients do as well without it as during its employment, hemorrhage being no more frequent.

#### Obstetric Methods in Prague.

DR. HENRY H. MORTON, in an article published in *N. Y. Medical Journal*, says :

Before examining a woman in labor, the nails are cut and cleaned and the hands and arms scrubbed with soap and water and a brush. This is followed by irrigation with corrosive sublimate solution (1 to 1000), and the hands are held in a basin of sublimate solution (1 to 1000) for a minute or so. Instruments are allowed to remain half an hour in carbolic acid water after being used. Catheters are boiled half an hour in a 5 per cent. carbolic acid solution and cleaned internally with a brush. The catheters are specially made, the eye being double and going directly through the catheter, and the portion above the eye being filled in with lead, allowing no crevice for the collection of dirt. The external genitals are carefully washed with carbolic acid solution, before the catheter is passed, to remove mucus which might be carried into the bladder before it. Cystitis seldom occurs, and then only when the catheter is not clean. Hypodermic needles are heated in the flame of the gas, and before giving an injection the skin is washed. Small instruments, such as dressing forceps, are also held in the gas flame.

The following antiseptic precautions



are adopted with regard to the patients: Upon their entering the hospital and before the first examination is made the vagina is irrigated with corrosive sublimate solution (1 to 2000). Patients are not irrigated daily unless they have some abnormal secretion, such as leucorrhœa. Upon the beginning of labor the vagina is irrigated before the first examination. The irrigation is not repeated during the course of the labor unless a number of students have examined, the case and the patient has fever or hemorrhage, or there is an indication for the use of instruments.

After the birth of the child the external genitals alone are washed, and the vagina is not irrigated in normal cases. When, however, any considerable laceration of its structure has taken place or instruments have been used, irrigation is employed. The uterus is never washed unless it has been operated upon, as in applying the forceps with the child high up, or in perforation or craniotomy.

The uterus is never washed with bichloride, carbolic acid solution being always used in the strength of 3 per cent. for prophylaxis, or, when infection is present, 4 to 5 per cent.

After every uterine irrigation two iodoform suppositories are introduced into the uterus. All wounds of the genital passages are sewed up and dressed with iodoform.

After the birth of the child and before the placenta has come away the vulva is covered with a sheet of cotton soaked in chlorine water, which is left till soiled, and then replaced by a fresh one. This is changed every two hours at first, and afterward three times a day. Before the birth the genitals are washed with soap and sublimate solution. During the puerperal state the external genitals are washed with sublimate, the vagina is not irrigated while patient is doing well.

Foul smelling lochia, a discharge too profuse in quantity, and the continuance of blood in the flow for a longer time than normal, are considered indications for irrigating the vagina either with carbolic acid or corrosive sublimate solution. The sublimate is never used when the patient is excessively anæmic or is suffering from kidney disease or diarrhea. When the discharge is normal in character but profuse in quantity, an astringent—either alum or acetate of lead—is used as an injection. The uterus is never washed out without an indication, as, for example, if the patient has fever or endometritis, or the membranes or placenta are retained. Carbolic acid solution from 3 to 4 per cent. is made use of in such cases.

In examining a patient with septicæmia, if, upon the introduction of the speculum, any portions of the vagina are found covered with diphtheritic deposit, the vagina is first irrigated, and then the patches of exudate are touched with tincture of iodine. When everything has been made clean, so that nothing septic can be introduced into the uterus, that organ is thoroughly examined.

The rooms for puerperal cases, each one containing six beds, are washed once in ten days with soap and water and hypochlorite of lime solution. Woven wire springs are used on the beds, and the mattresses are taken out of doors, beaten, and aired. In the lying-in room the beds are changed daily. In septic cases the rooms are washed as usual, and, in addition, a spray of carbolic acid is used with the atomizer. The bedsteads are put into a room and exposed to a high temperature, the mattresses are beaten and aired, and, if discharges have soaked through the rubber cloth with which each bed is protected, the mattress is burned.

## DISEASES OF WOMEN.

**Demonstration of Mr. Tait's Method of Flap Splitting.**

DR. H. T. HANKS (*International Journal of Surgery and Antiseptics*):

Mr. Tait, in his operation for the cure of vesico-vaginal fistula, pursues a course so entirely different from the majority of surgeons, that a description of his manner of operating may be of interest to all who are called upon for the relief of this troublesome lesion.

His method essentially consists in splitting up the mucous membrane of the vagina from the mucous membrane of the bladder, entirely around the lips of the fistula; then in passing a suture around the fistula, just beneath the angles of the flaps thus made, and in tightening the same, forming a ridge of vesical flap in the bladder and vaginal flap in the vagina. It is plain to see that the result of this operation, when successful, leaves the cicatrix the strongest portion of the vesico-vaginal septum. And when the result is a failure, there is no loss of tissue, nor enlargement of the fistula.

In operating here in the United States, where Sims' speculum is used so constantly, it is quite probable we will find, as I have already found, this instrument to be more servicable to us than the short, medium sized Ferguson speculum which Mr. Tait generally uses. He places his patient in the Sims' position, varying somewhat, according to the location of the fistula.

He then inserts the Ferguson speculum, as mentioned above, and brings the fistula in exact view. Then with a delicate pair of scissors he incises at the proximal and distal extremity of the fistula, see Fig. 1, the mucous membrane of the vagina, for one-third of an inch. This is a preparation for the splitting

up of the mucous membrane of the vagina from the mucous membrane of the bladder, for a depth of from one-twelfth to one-eighth of an inch all around the fistula. This work thus far is all done with the same pair of scissors through the cylindrical speculum. The speculum is then removed, the index finger introduced, and with his finger nail he makes sure that the two laps are properly separated, going over the same course that he has already cut up with the scissors, then pushing the vesical flap forward into the bladder, and

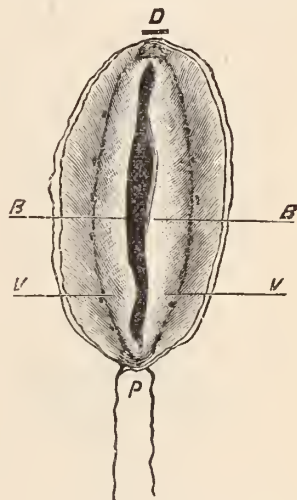


Fig. 1. Vesico-vaginal fistula. B, Bladder tissue.  
V, Vaginal tissue.

turning the vaginal tissue backwards into the vagina. In this way the wound is made ready for the suture.

If the fistula is of small or medium size, one suture completes the operation.

A delicate Peaslee needle single curve, with carrying thread, is the only instrument that Mr. Tait uses in introducing the suture, and this wonderful operator inserts this needle, and draws the suture entirely around the fistula, wholly by the sense of touch. He inserts the point of the needle at the proximal end of the wound, and passes it to the right or left, as the case may be, through the tissues

directly underneath the angle of the flaps, all the way around to the distal extremity of the wound, where he makes the point emerge into the vagina again, Fig. 1, *D*. He now threads the delicate silver wire, wholly by the sense of touch, into the carrying thread, and withdraws the needle; the fistula is now half surrounded with the suture. Exactly the same course is pursued in passing the needle on the opposite side; the distal end of the wire is threaded into the carrying thread and when the needle is withdrawn, the suture completely surrounds the fistula.

While he draws up and twists the suture he keeps one finger in the fistula to make sure the mucous membrane of the bladder is pushed into the bladder, and the mucus membrane of the vagina is drawn upward into the vagina (see fig. 2, section of tissue *A*). The parts are

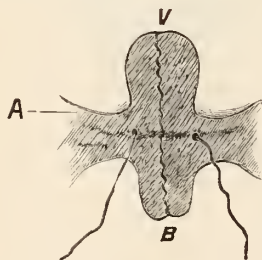


Fig. 2.

thus drawn together and held in apposition, in precisely the same manner as a purse is drawn up by a purse string (see fig. 3, *B*).

If the fistula is unusually large, some slight variation from this method would be pursued. It was my pleasure to witness Mr. Tait perform the operation when only one suture was necessary, and as I understood at a later date, the result was perfectly satisfactory.

In umbilical and ventral hernia the operation is performed in a very similar manner, the same principles being involved.

Of course with the different tissues which constitute the abdominal wall, the dissection or splitting of the flaps must be made in such place as will give the greatest support to the suture. Therefore, to find a firm bed for the suture, it is necessary to split the flaps

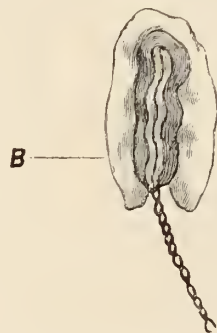


Fig. 3.

at or near the fascia of the muscles, so that the needle in passing around the fistula will catch up portions of the fascia and muscle.

It is often necessary here to dissect back the flaps for an inch, or an inch and a half, in order to reach the attenuated and retracting fibers of muscle and fascia.

(In a case of long standing umbilical hernia that I operated upon in the Post-Graduate Hospital, it was necessary for me to dissect back for one inch before I reached any muscular fiber.)

If in cutting down, the peritoneum is accidentally wounded, it should be thoroughly cleansed with antiseptic fluid, and a few cat-gut sutures inserted and pushed down so as to make the internal or intra-peritoneal ridge.

The needle is then inserted in precisely the same manner as in vesico-vaginal fistula and a silver wire or silk-woven gut should be used for the suture. While tightening the suture the peritoneal flap must be pushed inwards with the finger or the handle of the Peaslee needle, and the integumental flap must

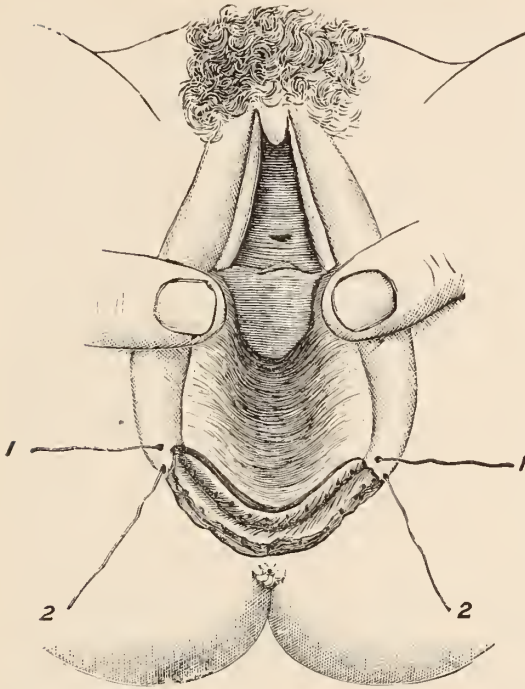


Fig. 4.

be drawn upward, making the outside ridge. A few superficial catgut sutures will close the wound in the integument.

Suitable antiseptic compresses should be used for a week or more.

In laceration of the peritoneum, Mr. Tait's method is not to denude or remove any mucous membrane, but with a pair of sharp scissors to make an incision one-twelfth to one-sixth of an inch deep on either side in the line of the tear or cicatrix from the median line below or above the rectum to the point originally represented by the posterior fourchette.

Then with his finger he makes the wound gape as much as possible. If the tear is small one suture may suffice. Two or three at most will be needed when the original laceration is extensive.

The sutures are inserted in the track of the wound in the same manner as in the operation for vesico-vaginal fistula. (See Fig. 4.)

Mr. Tait's operation seems to me to be especially adapted to cases where the lacerations involve the sphincter and extend up the rectum for half an inch, or, possibly an inch. But when the laceration extends further than an inch the operation should be done at two sittings. At the first sitting effort should be made to restore rectum alone, Fig. 5, after Mr. Tait's method, or according to the method described by myself.

At the second sitting the usual operation of Mr. Tait is, in my opinion, from a thorough trial in private practice and at the Post-Graduate Hospital, the best operation known. The operation when the laceration involves the sphincter, consists in simply splitting the edges of the retracting sphincter

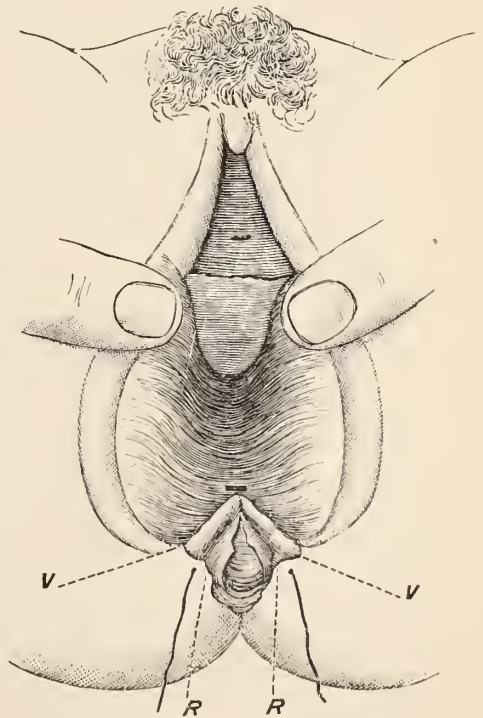


Fig. 5.



and rectum and inserting a suture with a Peaslee needle underneath the angle of the flaps. This gives, as is readily seen, considerable vivified surface for union by first intention. The mucous membrane of the rectum is turned into the rectum, forming a ridge which deflects like a valve, all fœcal matter. And as in the former operation if successful and union takes place, the line of union will be the strongest portion of tissue.

#### Management of the Bowels in Pelvic Cellulitis.

DR. FRANK W. WRIGHT (*N. E. Med. Monthly*):

At a recent meeting of the New Haven County Medical Society, two cases of pelvic abscess were reported by Dr. T. L. Axtelle. He expressed the opinion that if the bowels could be kept well open in cases of pelvic inflammation, more would recover without suppuration. But the question is, how to keep the bowels open without injuring the patient, when such quantities of opium are being given as are necessary to insure freedom from pain and absolute rest. Cathartics are surely contraindicated, as catharsis is sure to do harm by causing a general disturbance of the bowels and exhaustion of the patient, in whom it is necessary to save all the strength possible. Copious enemata cause great straining and pain, and, moreover, are often ineffectual without repeated administration. Now, this straining is not only annoying to the patient, but it also increases the inflammation, and consequently the pain and restlessness. To allay these conditions more opium is necessary, and this in turn tends to check what stimulation there may be to the peristaltic action from the injection. Recently I have been led to use means that I think will be of benefit in most cases.

The distention from gases, a consequence of the peritonitis, which always or nearly always accompanies parametritis, is a very disagreeable complication and often hard to relieve. While trying to overcome this without doing any injury to the patient, by creating a disturbance that would cause more inflammation, I tried giving enemata of milk containing turpentine. These were prepared in the following manner: One teaspoonful of the oil of turpentine was well beaten with the white of an egg, and this was mixed with about six ounces of milk. Such an enema should be given every six hours. Generally, after giving from six to eight of these injections, the bowels will begin to move once or twice daily and without any unpleasant symptoms. The movement will be free, easy, and natural. In my experience as soon as the bowels have become regular, the distention immediately becomes less. The following case serves to illustrate the good that may be derived from these enemata: Mrs. D—, aged thirty-seven years, miscarried at about the third month. She remained in bed but a very few days. Near the end of the second week she was taken with a chill and sharp pains in the left iliac region. There was great tenderness over the whole of the lower part of the abdomen, but more especially near the seat of pain. Suppositories containing one and one-half grains of the extract of opium were given every four hours, and when the pain was severe, as often as every two hours. Hot flaxseed poultices were applied over the whole of the abdomen, and the left iliac region was painted with the tincture of iodine as often as the poultices were changed, which were never allowed to get cold. The opium, of course, confined the bowels. Various laxatives were tried unsuccessfully. An

injection of a pint of sweetened milk and water was given, with no other effect than to cause great pain and griping. This injection was repeated in about an hour. This large quantity came away after a while, but very little fæcal matter came with it. The tenderness and swelling were increased and the patient was very nervous and weak from the siege she had sustained. I did not dare to repeat the injection and there was no movement from the bowels for several days. In the meanwhile there was a good deal of tympanites, and with a view of relieving this, I ordered injections of the above mixture to be given every six hours. After the second injection the gases came away freely, and on the third day there was an easy natural movement. From the time of the first movement she began to improve, and, although she was taking from twelve to twenty grains of opium per rectum, every day, she never missed having a daily movement, and always free, easy and natural. At the end of five weeks she was able to sit up and there was no tenderness, but a small tumor could be felt through the abdominal walls. This gradually disappeared after continuing the painting with the tincture of iodine. Injections given in the manner described answer three purposes: First, they cause regular and natural movements; second, they relieve the distention from gases; and the third, they are nourishing, which is of great importance where the stomach is irregular.

#### **Influence of Menstruation on the Pulse.**

ACCORDING as the vis a tergo changes in unison with our position, the pulse-rate varies, whether we sit, stand or lie down. Such at least is the case in health. The knowledge of this fact is of practical value in the examination for

life insurance. Any emotion, especially in nervous persons, will at once increase the frequency of the pulse, and to determine whether in a candidate for life insurance the frequency of the pulse is due to a transient cause or to disease, all that the physician has to do is to let the applicant lie down for a few minutes, when the pulse will at once become slower and assume its normal rate, provided there is no lesion of any kind producing the increased frequency, for then the pulse will remain the same as when standing. Hypertrophy of the heart induces greater rapidity, not influenced by position.

An interesting observation referring to this point has recently been made by Dr. F. Longe. He found that women, while menstruating, all have a pulse more frequent than usual, and no position, whether they lie, sit upright, stand, or walk, seems to exert the least influence on the pulse-rate. According to L. this is due to the altered blood pressure always present during the menses.—*Medical and Surgical Reporter*.

#### **Hypodermic Medication in Severe Uterine Hemorrhage.**

R̄.—Ext. ergotæ aq., 3 parts; glycerini, 7 parts; aq. dest, 7 parts. M. Sig.—Twenty minims to be injected in the thigh or abdomen.—*Medical World*.

#### **Lupus Serpiginosus of the Cervix Uteri and of the Pudenda.**

PROCEEDING to the special subject of his address, the president related the history of the case of a woman in whom the disease began in the cervix uteri and extended to the vulva, manifesting itself in the hypertrophic form. It terminated fatally in about two years. A cast of the external genitals was shown. Lupus most frequently appeared on the face, and rarely attacked the genitals in

women. During his connection with various hospitals in New York, since the year 1839, he had not seen in any of those institutions a single case of lupus of the genitalia, but he had seen many syphilitic affections resembling it. A special bacterium as distinctly recognized as that of tuberculosis had not been demonstrated to bear a causative relation to lupus. Women affected with lupus had not communicated it to their husbands, and he had failed in an attempt to inoculate it. No one pathological or histological feature had been shown to be characteristic of the disease. Clinically, cancer differed from lupus in that it never healed and left the patient apparently well for a time. The treatment of lupus was chiefly local, sometimes surgical, and depended entirely upon the form which the disease assumed. Where there was a hypertrophic condition, forming a tumor, its removal was indicated. An important point was to avoid doing injury to the surrounding or underlying sound tissues. Eventually lupus of the genitalia would end in death, and the suffering and disfigurement were even greater than when the face was affected.—*N. Y. Med. Journal.*

#### Suppression of Menses.

PROFESSOR BARTHOLOW recommends pulsatilla for suppression of menses from cold, also for inflammation of uterus and appendages.—*Coll. and Clin. Record.*

#### Torsion of the Pedicle of an Ovarian Cyst with Symptoms of Incarceration.

DR. HOCHENEGG (*Medical Press and Circular*), assistant to Professor Albert, at the Clinic of Surgery, showed and discussed a very remarkable case of torsion of the pedicle of an ovarian cyst, which had recently been operated upon at this clinic with the best success. The

woman in question had been admitted into the General Hospital with diagnosis of incarceration. The pulse was small and frequent; the abdomen much distended and, so to speak, divided into two parts, the upper one showing a tympanitic percussion note, whereas the inferior one protruded much in the form of a tumor. The history of the patient revealed that her bowels had not acted for six days, and that she vomited purulent masses for three days. The last symptom was at once stated at the examination of the patient. The patient had, moreover, stated that she was suffering for several years from severe constipation, which had not, however, been associated with the above mentioned symptoms until recently. She had no idea of the presence of a tumor in her abdomen, though such was found on examination in the clinic. The tumor showed fluctuation and extended from the symphysis as far as the navel. The vaginal examination had to be given up, as the tumor was very tender to the touch, and the patient was immediately seized with vomiting on examination. The diagnosis of ovarian tumor with torsion of the pedicle was made with a great probability of being correct, and operation was at once resorted to. After abdominal section much blood and serum escaped, and the former to such an extent that the operation had to be speedily performed. During the operation a blue membrane which belonged to the tumor became visible, this was punctured, and a great quantity of blood again discharged. The swelling was rapidly removed, and it was found to be a cystic ovarian tumor, which took its point of departure in the left ovary. The hemorrhage referred to was due to the fact that the inferior part of the cyst had burst, the pedicle was torted in the inverse position of a watch hand.

The lecturer now discussed the question as to the symptoms of incarceration which had been observed in the case under consideration. An adhesion of the cyst with the intestinal wall was expected to be present. This was not, however, the case. A compression of the "flexura sigmoidea" (the iliac S) by the tumor had undoubtedly taken place. During the operation the "toilette" of the peritoneum was not resorted to; blood and serous liquid were allowed to remain in the abdominal cavity. The course of the operation was nevertheless very favorable; the wound caused by laparotomy healed in six days by primary intention; no vomiting supervened any longer; flatus occurred in a short time, and on the ninth day after operation the bowels acted for the first time. The patient did not suffer any longer from constipation, and on the twenty-first day after operation she could already be dismissed as cured from the hospital. Dr. Hochenegg then summarized the instances which in the case of torsion of the pedicle of the cyst gave origin to symptoms of incarceration, and cited as such: 1. The adhesion of the intestine with ovarian tumors, so that the intestine becomes tortured, too. 2. Compression of the intestine by the tumor. 3. Torsion of the pedicle around the intestine, so that this is also submitted to torsion. In the case which had been shown, the second condition seemed to have been present.

Professor Hofmohl remarked, in addition to the communication of Dr. Hochenegg, that he had two days before operated upon a similar case. It was the case of a double torsion of the pedicle, with no symptoms of incarceration, but with those of peritonitis. On operation three litres of liquid discharged from the abdominal cavity, and the cystic wall was found to be thick-

ened. The cyst derived its origin from the left ovary and adhered to the peritoneum; its contents were of a hemorrhagic character. It was punctured and detached from the adhesions. Professor Hofmohl finally applied to the pathologists present in the Society, asking them for an explanation of the nature of these torsions of the pedicle, as he had not found such a one in the respective literature.

Professor Kundrat (professor of pathological anatomy) remarked that such torsions of the pedicle of the cyst were not rare, especially when the cysts belonged to the external part of the broad ligament. The cyst, during its growing, arose from the cavity of Douglass, and in doing so made torsions; it did not gradually grow, but some of the cystic cavities at the periphery developed more rapidly, and the torsion of the pedicle was thus to be explained. The consequences of such a condition were dependent on the degree to which the pedicle was compressed; in the pedicle of a cyst of the broad ligament there were arteries and plexus of veins or the dilated blood vessels of the original ovary. When these blood vessels were quite compressed an absolute stasis supervened, and this first in the veins which were filled with blood to a high degree, whereas the arteries still conveyed the blood to the organ. Now, as the formation of a collateral circulation was impossible, hemorrhage into the cystic cavity supervened, and suffusions occurred in the wall of the cyst. The cyst swelled on excessively, and the sudden increase of its size would give origin to a compression of the intestine.

#### The Treatment of Mammary Tumors.

FAGAN (*Dublin Journal of Medical Science*): The author considers his



subject under three heads, according as they are concerned :

1. Tumors potentially malignant, but usually classed as non-malignant.

2. Well-defined malignant tumors that are usually subjected to operation.

3. Tumors in a very advanced stage, ulcerating, or accompanied by great cachexia, that are usually considered unfit for operation.

Beginning with the third variety, the indications are to relieve pain, to neutralize the offensive odor, and prevent and restrain hemorrhage. For the first indication preparations of opium, belladonna, and stramonium, either locally or internally, or both, and ice-bags to affected parts, are recommended. For the second, Esmarch's powder is suggested, containing one part each of arsenic and muriate of morphine, eight of calomel, and forty-eight of powdered gum arabic, of which half a teaspoonful may be sprinkled upon the wound daily. To arrest hemorrhage, any of the approved styptics may be used, and even if the case is well advanced it is advised to remove the growth, in most cases, for its palliative effect. For the second variety the author recognizes but one course as suitable — the complete removal of the disease by a cutting operation at as early a period as possible. The subsequent recurrence of the disease is not necessarily a contra-indication to subsequent operations. It is admitted that certain cases are not suitable for the knife, and may be attacked by caustics or cautery. In the third variety the treatment should be influenced by the age of the patient and the progress of the growth. In very young girls it is thought that the growth is invariably fibromatous, and will disappear by suitable general and local treatment. Compression has been found a very efficient method of treatment,

and is recommended with great confidence by Paget.

The conclusions are as follows : 1. In many of the very worst forms of advanced, painful, ulcerating scirrhus, where there is no immediate danger of death from marasmus or visceral complications, the breast may be removed with great benefit and relief to the patient.

2. All cases of malignant growths of the breast should be operated upon as soon as diagnosticated, the removal being made as thorough as possible.

3. All doubtful cases should be similarly treated.

4. All recurrent growths should be removed at their earliest manifestation.

5. All non-malignant neoplasms should be removed as soon as they show a tendency to enlarge, especially in women between twenty-five and forty years of age.—*Ibid.*

#### Dysmenorrhœa.

R. Tinct. aconiti rad., ℥xx; morphia sulphatis, gr. j.; ext. cimicifuga, f 3 j.; ext. ipecac., f ℥xx.; elix. simp., 3 iss. M. Sig.—Teaspoonful every two hours.

#### The Use of the Curette for the Relief of Hemorrhage due to Uterine Fibroids.

COE's conclusions (*Medical Record*), are as follows :

1. The hemorrhage in cases of fibroid tumor of the uterus has its source not in the tumor itself, but in the hypertrophied endometrium.

2. The hemorrhage is not directly proportionate to the size of the tumor, but to the extent of the mucous surface. Venous obstruction and the menstrual congestion in the mucosa are the chief active causes.

3. In certain cases the hemorrhage can be diminished for a considerable period by thoroughly scraping way the

hypertrophied endometrium, and repeating the operation as often as may be necessary to keep the menorrhagia under control.

4. Curetting is merely a palliative measure, but it may enable the patient to survive until she is relieved at the menopause, whereas radical operations too often result fatally.

5. Curetting in these cases should be regarded as an experiment which, however, is so harmless and so frequently successful that we are justified in giving it a fair trial before advising oophorectomy, myomotomy, or supravaginal amputation.

6. The use of the curette requires no special skill. It is an operation for the general practitioner, and is much more rational than to allow the patient to become exhausted by repeated hemorrhages which medication and other palliative measures are powerless to control.—*New York Medical Journal*.

#### The Significance and Localization of Pain in Pelvic Disease.

COE (*Gaillard's Medical Journal*): This important subject, which involves so much that is obscure, is treated in a very suggestive and thoughtful manner in this paper, the deductions of which are:

1. That pelvic pain has its origin more often in the perimetrial tissues than in any particular organ, being due to irritation of nerve-trunks rather than nerve-endings.

2. That the reflex or transferred pains, commonly referred to certain lesions in the pelvic organs, may radiate from inflammatory foci in the peritoneum or connective tissues surrounding those organs.

3. That operations upon, or complete removal of, such diseased organs may fail to remove the pain for the reason stated.

4. That this pain, like other nerve-pains, may be sensibly relieved by the proper application of electricity.—*Ibid*.

#### Vaginitis.

For specific vaginitis application of solution of corrosive sublimate, followed by tampons of alum and glycerine, or, if very severe, powdered alum alone upon tampon, and daily cleansing, is the treatment of Professor Parvin.—*Coll. and Clin. Record*.

#### A Local Treatment for Vaginismus and Vaginitis.

DR. N. GUHMAN (*Weekly Medical Review*) says:

Vaginismus, as you all know, consists of a hyperesthesia of the nerves supplying the mucous membrane and muscles of the vagina, and its orifice, which upon being irritated produces a spasmodic contraction of the sphincter and other vaginal muscles. This condition may be due to functional or local causes, more often the latter.

Vaginitis is an inflammation of the lining membrane of the vagina, and it may be of a specific or a non-specific character. This disease is often connected with vaginismus.

In the treatment of these troubles the first step is to remove the cause if this be possible.

In vaginismus you are aware that it is not easy to introduce a speculum, or even the finger into the vagina, without considerable pain to the patient.

My method of proceeding in these cases is to place the patient on her back, the pelvis somewhat elevated and the knees flexed. I either introduce a bivalvular or a small cylindrical speculum, I prefer the former as on account of its flatness it is easier introduced. Before introducing it, however, I lubricate it with vaseline, and then take a camel's

hair brush and apply a four per cent. solution of cocaine both to the speculum and to the orifice. I then introduce the speculum into the vagina and very gently open the blades. By this means I give the patient very little pain. After placing a small roll of cotton beneath the speculum across the perineum, I pour into the vagina through the speculum, a solution compound of sulphate of zinc, one or two grains, chloral hydrate five grains, water and glycerine of each four drams. I wait several minutes and then withdraw the speculum slowly but not completely out of the vagina.

As I withdraw the speculum, the walls of the vagina come together and the solution touches every portion of the mucous membrane. I now push the speculum back again, and introduce a small cotton tampon with a string tied to it, pushing it back with a long dressing forceps, at the same time withdrawing the speculum.

The tampon will absorb that part of the solution which remains in the vagina and that which escapes will be absorbed by the cotton on the perineum. I now place a piece of cotton between the labia, apply a bandage and the operation is completed.

I let my patient remove the cotton and withdraw the tampon in from four to six hours afterward.

I repeat this treatment three or four times a week. After the first treatment, I have no need for the cocaine, as the finger or speculum can be introduced without giving much pain.

In vaginitis I proceed in the same way, except I do not use the cocaine solution.

In vaginitis the chloral acts as an anæsthetic to the mucous membrane and vaginal muscles.

Between visits I have my patient to

use vaginal douches of hot water with a little borax added to it.

By this treatment I have secured excellent results, and my patients and their husbands (if they had any) appreciated it very much in vaginismus.

#### **The Hot Intra-Uterine Douche in Purulent Endometritis.**

IN a paper read before the Gynæcological and Obstetrical Society of Baltimore, Dr. WM. E. MOSELEY, called attention to a method of treatment that, although not new, has received far less attention than its merits deserve, for in his experience it has been perfectly safe, easy of application, has caused the patient no pain or serious after symptoms, and above all has been promptly curative in its effect; free douching of the uterine cavity with warm, or rather hot water, either plain or medicated. The water can be injected with a fair amount of force; it reaches all portions of the endometrium, washes the discharge out of the mouth of the glands, and so reaches parts that cannot be reached by the ordinary applications, and has no destructive effect on the mucous membrane as do the more active caustics.

It is important to have the cervical canal freely enough dilated to permit a ready exit of all the water injected, and in many cases of any considerable standing such will be found to be the case. He has used a double catheter and has injected directly through a small flexible male catheter, and has found both methods equally satisfactory. One thing he would insist upon, is the use of a large amount of water, from one to two gallons, and at a temperature of from 100° to 110° F. He has used the water clear and also medicated, and both have given equally satisfactory results.

This method of treatment is perfectly

rational, and is the procedure that any one would follow in any other cavity containing pus.

He believes that we would get much better results from intra-uterine medication, if we took the precaution to first thoroughly remove all secretions from the endometrium before making any application. This he has tested, and with only the happiest result.

### DISEASES OF CHILDREN.

#### The Symptoms, Diagnosis, and Treatment of Pneumonia in Children.

WE extract the following on treatment, from an article by DR. DAVID PHILIPS, published April 1, 1888, in the *N. Y. Medical Journal*:

Some writers say that an emetic at the outset will abort or modify the disease. I try to abort it by the administration of quinine and calomel, and believe I have been successful in a certain number of cases. I have found that the result of this treatment resembles in its effects the result of a large dose of quinine when given to break up a commencing cold in the head in an adult. Some patients will be improved the next day, while others, after improving for twenty-four hours, have a return of the symptoms. and still others seem not to be affected. Perhaps pilocarpine may prove more successful, but I have never ventured to use it in the treatment of this disease.

The abortive treatment by calomel and quinine can do no harm even if it does no good. I give, on the appearance of the first symptoms, a dose of calomel by the mouth, and a full dose of quinine in a suppository by the rectum, repeating the quinine in about ten hours. If this treatment proves unsuccessful, I commence the regular treatment of the disease, being guided by the symptoms, strength of the patient, and

variety of the disease. For the first few days, or until consolidation is well advanced, the patient should always be kept in a semi-recumbent position, or, if carried in the arms, the position changed from time to time. This not only renders respiration easier, but prevents that very common occurrence in children—the stasis of fluids in the posterior portion of the lung, and may consequently limit the amount of solidification.

In croupous pneumonia the child's chest should be enveloped in cotton batting, covered with oiled silk. Personally, I have no faith in the water girdle or in vesication. If there is much pain in the side, the application of a mixture of equal parts of chloroform and tincture of aconite on a piece of cotton of the size of a quarter of a dollar, held on for a few minutes at a time, will give great relief, and is all that is generally required. If the pain is very bad and the child is strong, the application of one leech may be resorted to; but never blister, as the irritation to the nervous system which ensues at the time and subsequently only does harm.

In broncho-pneumonia the application of flaxseed poultices, sprinkled slightly with mustard, is required, and they should be applied both in front and behind, being changed every three or four hours. These poultices should be continued until the skin becomes covered with an eruption; then an oil-silk jacket should be used. The poultices may be repeated from time to time, if deemed necessary. When the child is robust, the symptoms mild, and the fever not very high, the best treatment is the administration of from eight to ten grains of quinine a day. If the fever is high and the pulse bounding, aconite should be added, the pulse being carefully watched during its administration.



In my opinion, there is no medicine which works so admirably as aconite in the pneumonia of childhood, if given at the right time. In administering it, the condition of the pulse should always be the guide. In other cases the treatment may be commenced by a mixture consisting of liquor ammonii acetatis, syrupus ipecacuanhæ, and spiritus ætheris nitrosi. As the second stage approaches, the treatment should be slightly changed. The aconite should be stopped, and carbonate of ammonium and, perhaps, syrup of senega added to the treatment, depending upon how the child is withstanding the disease. Stimulants may be necessary at this stage. The treatment of the third stage consists in the administration of digitalis, camphor, musk, and stimulants at frequent intervals. In broncho-pneumonia, without regard to the strength of the child, I commence from the outset the administration of the stimulating expectorants—carbonate of ammonium and quinine—and, if the child will not take the quinine by the mouth, I give it by the rectum three times a day. It appears to me to work just as well as when given by the mouth.

When the child is cyanotic, and presents symptoms of suffocation, I have obtained the best results by the administration of an emetic, followed by a steam bath and the use of camphor and stimulants. In cases where there are marked nervous symptoms, which are probably due to the condition of the circulatory apparatus, the right heart being engorged, the venous system full, and the capillaries dilated, camphor, digitalis, and moderate stimulation give the best results. Where the body is covered with perspiration or the extremities are cold, digitalis is indicated. If the bowels are constipated, calomel may be given every third day. The

lowering of temperature which follows its administration is remarkable in many cases. If diarrhea is present it should be stopped at once.

As regards fever in the pneumonia of children, it is surprising how well they withstand it, many of them bearing a temperature of 104° for days without marked inconvenience. As a rule, it is better to leave the fever alone; but if it is thought necessary to reduce it, give full doses of quinine. Do not use antipyrine or acetanilide, as they are too dangerous remedies to give to children suffering from pneumonia. Salicylate of sodium may be used if it is preferred, one grain for each year of the child's age being given every two hours. I, however, use quinine by the rectum in doses of from four to ten grains. Generally two doses during the twenty-four hours are sufficient, the last dose being given about midnight; but it may be administered oftener if necessary. It usually takes four hours before its effects on the temperature are manifest, and in some cases no effect is produced until two or three doses have been given, after which two doses a day will be found sufficient.

#### A Clinical Study of Erysipelas in Infants.

FROM a review of the literature of the subject of infantile erysipelas and personal observations of cases, the author arrives at the following conclusions:

While he cannot assent to the assertion of even such distinguished authority as Jonathan Hutchinson, that erysipelas is a non-specific disease and of spontaneous origin, he is by no means of the opinion that it is specific in the sense that it is due to a single specific organism, as are small-pox scarlatina, etc. He agrees with a number of writers who think that it may be an expression of

one or more of a number of specific causes; that it should be regarded as a symptomatic inflammation, in which its exciting micro-organisms, themselves differing in nature, react upon the economy in a more or less similar manner, and of the activity of which it may be only one of several phenomena; that while experimental observation may establish the identity of the streptococcus erysipelatis of Fehleisen, as a micro-organism capable of exciting erysipelas in man and other mammals, by inoculation, neither experimental research nor clinical observation will establish it as the sole cause of even the restricted form of erysipelatos inflammation to which its discoverer would apply the term erysipelas. Finally, it may be said that no conditions are more favorable to the establishment of these opinions than the observation of erysipelas of new-born and nursing infants, which, in other respects, differs from that of older persons in its greater tendency to migration, to a protracted course and to a fatal termination, and, last of all, to the occasional development of an œdematous induration of the affected connective tissue, to some extent resembling scleroma neonatorum.—*Arch. of Pediat.*

#### Kephir as a Food for Infants.

KEPHIR is the product of a special fermentation of cow's or goat's milk, analagous to koumiss. In the *Cincinnati Lancet-Clinic*, Dr. H. L. TAYLOR reports success from its use in the wasting diseases of children. He quotes the following conclusions as to the value of kephir from a communication by Theodoroff to the Medical Society of Würzburg, in 1886:

1. During its use the quantity of urine is increased, but only in proportion to the quantity of fluid consumed.

2. The specific gravity of the urine

sinks, and also the weight of the solid matter.

3. Nitrogenous changes are checked.

4. Digestion is strengthened and stimulated in even the worst forms of dyspepsia, and the nutrition of the body is improved.

5. The gain in body weight is rapid and enormous.

6. The number of red blood corpuscles increases.

And, lastly, kephir is therefore to be regarded as one of the most valuable aids known in building up or retaining the power of the body in all conditions of great general debility.

The experiments in infant feeding at the Home are to be continued, and a second and more mature report will be made in regard to the matter.

#### The Feeding of Children.

NOT until three years old should a child be permitted to take its meals at the table. Parents should understand that even then he has not reached an age when a full diet can safely be allowed.

First of all, he must be taught to eat slowly, and parents certainly ought to set the example. The habit of "bolting" food, so common to many, both children and adults, is an extremely pernicious one, for which there is no excuse.

Even before this period, sound fruits may be allowed children, provided, of course, those easy of digestion are selected, and care is taken to remove the seeds, skins, etc. It will be well to encourage them, when they join the family at the table, to eat a small quantity of fruit for breakfast, and before other foods are served. For this meal, children may be allowed milk, oatmeal, bread and butter, and eggs, either lightly boiled, poached or scrambled. If, instead

of eggs, they prefer fresh fish or steak, either one or the other may be given; the meat, of course, must be minced fine. Fried foods are forbidden, and this includes fritters and fried cakes.

At dinner, if the soup is thin, it may be allowed, but that kind of soup so often in the home of the laborer, and which is made from bones thickened with vegetables, and strongly flavored with onions, is entirely unsuited to a child's digestion, and should never be given it. Roast or boiled meats, such as beef or mutton, may be allowed; the fact that pork and all salted and otherwise cured meats are difficult of digestion should be remembered, and their indulgence forbidden.

Potatoes, baked or boiled, dry and mashed, spinach and peas, string beans, asparagus of good quality, cauliflower, and beets when young, are no burden to a child's digestion, and should be allowed; with green corn it is different, unless that which is very tender is used, and the kernels are carefully crushed or grated. Such vegetables as turnips, cabbage, carrots, parsnips and onions require strong powers to digest them. The same may be said of celery, unless it is stewed. While the vegetables which have been recommended as a part of children's dietary are usually well borne by them, it must not be assumed that they can safely eat them all at one meal; only two of them should be partaken of each day.

For supper, milk toast, bread and butter, and a glass of milk, with possibly a little stewed fruit, will be quite sufficient for young children. Hot bread, cheese and hashed meat and vegetables, so often the supper of the hearty workman, is altogether too indigestible for young children. In fact, it should be the duty of the mother to learn what foods are easily digestible,

and none others should be allowed. Her own powers of digestion, or those of the father, cannot by any means be considered a safe guide in the selection of food for her little one.—*Boston Jour. of Health.*

#### On the Sterilization of Milk and Foods for Infants.

DR. JEFFRIES (*American Journal Medical Sciences*):

During last summer's work as district physician of the Boston Dispensary, the author's attention was called, by the severity and prevalence of the trouble, to the summer diarrheas of infants. The cases presented a clinical picture familiar to all physicians. Treatment was begun with the ordinary drugs and salicylate of soda and care of the bottle. Later, the treatment was changed to creasote, if vomiting existed, and care of the milk supply. The change was made to bring the treatment more in accord with the generally accepted belief that bacteria are at the bottom of the trouble.

Investigation of the milk supply showed that this was greatly at fault; though "fresh each day," it was, as a rule, found to be decidedly acid, often curdling, if heated, by the time it was fed to the infant.

Remembering the custom of housewives to scald the milk, directions were given that all milk used for the infants should at once, on receipt, be steamed in a skillet set into the top of the tea kettle. After this it was kept covered, and on ice if possible. The result was that, instead of staying at the point of death, the little patients began to pick up and were soon well, the stools first becoming light, then yellow.

The ordinary milk supply of a large city is a day or more old, has a slightly acid reaction, and contains many grow-

ing bacteria. If kept for a day, it is decidedly acid in reaction, has a sour taste, is apt to curdle if heated, and contains a very large number of bacteria, the cause of the changes. Fresh milk sterilized, or collected sterile, and protected from organisms, undergoes no changes even after the lapse of indefinite periods, except the separation of the fats. If bacteria are present a great variety of changes may occur according to the species,—for instance, the milk sugar may be turned into acids, the fats broken up, or tyrotoxin formed. As milk affords such a fine medium for growth, all efforts to rid it of bacteria must be governed by the use of poisons—germicides—or some physical condition inimical to their life. The first method is not admissible in foods, while the other offers little chance of success except by heat. Cold simply retards their growth, does not kill. As boiling produces marked changes, this also is undesirable, so our means are narrowed down to the ordinary one of steaming. Fortunately, this produces but slight changes in the milk compared to the boiling, and, as he has found, is efficient.

The writer presents a series of forty-nine experiments in the sterilization of milk, condensed milk, cream and milk mixture, and Mellin's food mixture.

The milk was steamed for from five to fifteen minutes, and afterwards agar-agar or Esmarch cultures made.

The experiments show that milk may be sterilized by steaming for fifteen minutes. The majority of specimens subjected to one steaming of fifteen minutes showed distinct signs of change within a month, while most of those steamed twice did not change at all.

The following directions are given for the sterilization of milk :

Stopper the flasks with cotton-wool, and heat them in an oven for thirty

minutes, at a mild baking heat, or until the wool becomes brown. Pour the requisite quantity of food into the flask, and then place in the heated steamer for fifteen minutes.

Any cooking steamer with a perforated false bottom and a snug cover will do ; or the lower part of a Chamberlin's steamer ; the heat must be sufficient to keep the water in active ebullition.

The milk should be steamed when first received, and preferably in the flasks from which it is fed to the infants. This requires as many bottles as the infant is fed times during the day. If the milk is allowed to stand before steaming, the advantage of the method are done away with in great part. The milk may be sweet, but has already been acted upon by bacteria. In case a sufficient number of flasks cannot be afforded, the milk should be steamed in a few larger ones, kept stoppered with cotton-wool, and drawn from as needed.

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## OBSTETRICS.

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### Sounding of the Ducts of the Mamma.

It seems strange that while so much energy has been shown in the exploration of the hidden recesses of the body, the ducts of the mammary gland have until recently remained untouched.

As far as we know the first attempt at sounding them was recorded by Dr. A. K. Bond, who published in the *Medical News* an account of a case in which he passed a blunt hypodermic needle in along the nipple ducts and injected through it, with success, astringent and anodyne solutions upon the inflamed surfaces of the ducts within the gland.

Our attention is now called to another attempt in abnormal conditions of the mammary gland to bring about a cure by passing delicate instruments along



the ducts of the nipple to the seat of the trouble. Dr. G. W. Squires in the *N. Y. Medical Record*, in speaking of the engorgement of the lacteal ducts which is so often followed by abscess, recommends that the contracted duct be dilated by a silver probe before the application of the breast pump, or better, that the capillary catheter invented by J. W. Cousins, of London, to which a hand-bulb exhaustor is attached, be passed in along the duct and the pent-up milk or pus be drawn off through it. By the aid of a lens, he says, we can accurately locate the duct which is at fault.

Whether this method recommended by Dr. Squires will prove successful in all cases or not, can only be shown by more extensive experience. At any rate it has now been proved that the ducts of the nipple may be easily and safely sounded either with or without the aid of a lens, and we have within our reach a new method of treatment which in suitable cases and with proper precautions may be of very great value in the treatment of diseases of the mammary glands.—*Id. Medical Journal*.

#### Left Hemiplegia Following Puerperal Eclampsia.

DR. B. W. WHITE, of Bridgeport, Conn., sends us the following interesting history :

Mrs. K—, age 30, at the thirty-second week of her second pregnancy, showed signs of albuminuria. Upon examination of the urine such was found to be the case, and appropriate treatment adopted with instructions to notify me of the occurrence of any cephalalgia, dizziness, blindness, or increase of œdema of the extremities or eyelids. Matters progressed favorably for the next three weeks when I was notified of the above event ; the element of

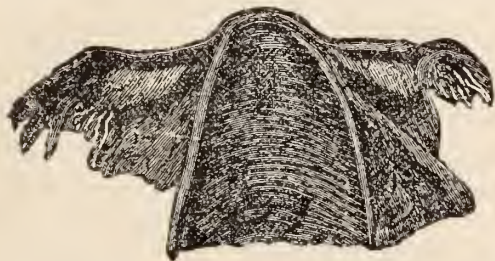
cephalgia predominating the other symptoms without perceptible increase of œdema, potassium bromide and chloral hydrate, with eliminatives, were administered, but without the desired result, for, within a few hours I was called hastily to the bedside only to witness my patient on the verge of the impending calamity, and, before I could produce chloroform narcosis, it came with its usual dreaded terror. Anæsthesia being completed, and podalic version combined with the Smellie-Veit method instituted, a living child was extracted—the fingers being used as dilators of the patulous cervix. After the secundines had been removed, good contraction obtained, and the anæsthesia subsided, the patient returned to consciousness and did well during the next twenty-four hours, when a general peritonitis, which threatened death, took place and lasted three days with decline and a degree of recovery that astonished as well as cheered us all (the patient even expressed a desire to sit up on the seventh day). But, the unanticipated worst had yet to come, for, when I made my morning visit on the eighth day, signs of left hemiplegia were manifest, the patient complaining of numbness and inability to properly move the extremities of this side, this condition refused to be in any way affected by excito-motors, absorbents, etc., paralysis steadily increasing to complete loss of motion and sensation, and finally invading the muscles of deglutition and respiration, death from asphyxia closed the scene on the fourteenth day. Thus we see the result of only one convulsion—an autopsy was not permitted. I might say that twelve hours post partum the urine contained 50 per cent. of albumen, and twelve days after 15 per cent. I report this case because its parallel is rare.

## DISEASES OF WOMEN.

## New Operation for Retroversion.

DR. W. GILL WYLIE thus describes his operation in the *Pittsburgh Medical Review* :

The following is a description of a new operation which I am now and have been doing for cases of retroversion



complicated by adhesions that cannot be cured, nor, indeed, properly diagnosed, without opening the abdominal cavity.

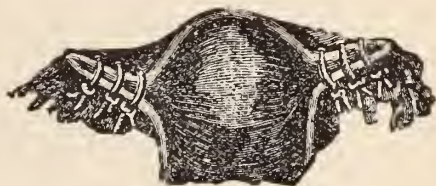
After opening the abdomen I break up the adhesions of the uterus and appendages, and lifting them up and seeing that the tubes and ovaries are not diseased, nor tubes occluded, instead of doing hysterorrhaphy, as recommended by Kelly and others, or, as Polk recommends doing, in addition to the laparotomy, Alexander's operation for shortening the round ligaments, I catch up the round ligament with a pair of pressure forceps at about its middle or equal distance from the uterine to the pubic extremity. I then scrape off the peritoneum on the inside of the fold made by lifting or bending the round ligament on itself, and then pass three strong ligatures around the round ligament so as to shorten it from two to three and a half inches. The ligatures are not made tight enough to cut through or destroy the ligament, but sufficiently to hold the fold securely. I then supplement these ligatures by several small stitches

to secure perfect apposition of the raw surfaces. This is done on both sides, and I find that it securely holds the body of the uterus and the appendages forward and up from the floor of the pelvis.

I have now done the operation in five cases and, so far, with complete success. Two of the cases in my last year's list were treated in this way. Several years ago I began to include the round ligament in my pedicle ligature when removing the tubes and ovaries, when the case was complicated by retroversion, and found that it acted well in holding up the uterus.

Last year I began to do the new operation and have now perfected it, and am willing to recommend it as a safer and better procedure than any other for the cure of such cases.

The sutures should not be made to



include too much of the tissues, so as to avoid injuring the uterus or bladder.

## Use of Pessaries.

DR. WALLACE A. BRIGGS, in a paper read before the Sacramento Society for Medical Improvement, says that pessaries must always be regarded as foreign bodies and their irritating qualities reduced to a minimum. This is to be accomplished :

1. By using thick, polished, non-absorbent pessaries. A rough absorbent surface not only irritates mechanically but also furnishes conditions extremely favorable to decomposition and consequent chemical irritation and even

septic infection. A pessary with thin bars is much more likely to abrade and perforate the vaginal walls and to interfere with the pelvic circulation than one with thick bars.

2. By educating the vaginal mucous membrane and the neighboring tissues to a tolerance of the pressure, friction, and other causes of irritation consequent on the use of pessaries. This may be done by the use of either antiseptic cotton or antiseptic lamb's wool support. Either of these materials, indeed, but especially the latter, on account of its elasticity, makes an admirable pessary. Previous to packing, astringents, either in powder or solution may be applied to the vagina for the purpose of "hardening" it. Some prefer the use of elastic pessaries to test the tolerance of the pelvic tissues. He has not, however, found them altogether free from objection, and ordinarily prefers the antiseptic packing.

3. By accurate adjustment. By no means should the instrument be too large, otherwise the vagina will be unduly distended, irritated, inflamed, eroded, perhaps perforated, and the functions of neighboring organs seriously interfered with. Accurate adjustment relates to form as well as to size. Sharp angles should be regarded with suspicion, if not altogether discarded. One should never attempt to accomplish too much with the first pessary.

4. By occasional, sometimes frequent, removal of the pessary. In this way we obviate the evil effects of continuous pressure. In properly selected cases, therefore, instruct the patient to remove the pessary every third or fourth night on going to bed, and to introduce it again in the morning before rising. In the interval, position may be relied upon to keep the uterus in place.

5. By thorough cleanliness secured

by daily cleansing and occasional antiseptic irrigation of the vagina.

Not only, he says, must pessaries be regarded as foreign bodies, but their contraindications must also be kept well in view. To the neglect of these, he thinks, must be ascribed much of the prevailing doubt as to the value of pessaries. Among these contraindications may be mentioned fixation of the displaced uterus; either acute, subacute, or some forms of chronic inflammatory affections both of the uterus and of the uterine annexes. Minor contraindications consist of catarrh and erosions of the cervix, excessive weight of the uterus whatever its cause, extreme flexibility of the uterine walls, and vaginitis.

The author closes his paper with notes of several cases illustrating the benefits which accrue from the use of pessaries in appropriate conditions.—*Sacramento Medical Times*.

#### Vaginal Examinations.

IN making vaginal examinations, soap is the best lubricant for the finger, says *Annals of Gynecology*. It is cleaner and more slippery than oil or vaseline, and more easily removed from the hand, which is soon needed for something else; besides being more agreeable to the patient.—*Coll. and Clin. Record*.

#### Vaginal Lotion.

For leucorrhea, blennorrhea, relaxed condition of the mucous membrane, excoriations and irritation :

℞. Tinct. geranium maculatum, tinct. hamamelis virginiana, āā, ʒ ij; tinct. hydrastis canadensis, ʒ ss; aquæ bul-lientis, ʒ xiss. M. Et filter. Sig.—Inject freely night and morning.

*Lotion No. 2* : ℞. Tinct. geranium maculatum, ʒ ij; tinct. iris florentina, ʒ ss; sodæ biborat., ʒ j; aquæ



bullientis,  $\bar{3}$  viij. M. Et filter. Sig.—As often as required.

*Lotion No. 3, for Fætor:* R. Tinct. quercus alba,  $\bar{3}$  ij; tinct. baptista tinctoria,  $\bar{3}$  ij; tinct. ligusticum leuisticum,  $\bar{3}$  j; carbolic acid, pure crystals,  $\bar{3}$  ss; aquæ bullientis,  $\bar{3}$  xij. M.—Et filter. Sig.—To be used freely two or three times a day.—*Medical World*.

#### The Treatment of Peritoneal Tuberculosis, with Special Reference to Laparotomy.

PRIBRAM (*Contribl. f. Gyn.*) states that the operative treatment of tuberculosis of the peritonæum has been the subject of much discussion of late by the gynecologists and surgeons, and that they have generally expressed themselves in favor of laparotomy as the result of a series of successful operations. The author looks at the question from its clinico-medical standpoint. For certain cases of peritoneal tuberculosis he does not question the value of laparotomy, but he warns against a too optimistic view of the results of such treatment, and believes that cases for such operations should be very carefully selected. In those cases in which the tuberculous affection of the peritoneum is only a portion of a serious general affection, laparotomy should not be attempted. Those cases which are purely peritoneal, or are complicated only to a slight degree by affections of the lungs, bones, and intestines, especially if the latter are not very progressive and there are no intestinal ulcerations, should have a methodical treatment. First the hectic fever should be combated with suitable antipyretics, and it may be overcome by either of several recently introduced agents of this character. The patients should at first receive light nourishment with especial reference to the use of fat producers, and subsequently the nutriment may be more substantial. If the

nutrition is good and there is no diarrhea, a moderate use of diuretics is advisable for some time. The abdominal walls should receive systematic inunction with green soap, moderate massage without force being used. Of course the most favorable climatic and hygienic conditions are essential. If after four weeks of the foregoing method of treatment absorption has not taken place, the hectic continuing, laparotomy may be tried. An exploratory incision may be necessary to diagnosticate between ovarian cyst and peritoneal tuberculosis—*N. Y. Medical Journal*.

#### The Treatment of Uterine Myomata by Apostoli's Method.

ROBSON (*Lancet*) gives details of several cases in which Apostoli's method was used. In one a large tumor reaching to the ribs had been reduced to a simple pelvic enlargement in a little over two months, a current of 150 to 270 milliampères having been used twelve times. Previous to treatment, menorrhagia had compelled the patient to use eighteen napkins twice a month. When treatment ceased she required only six napkins once a month. In another case the tumor had steadily increased, though nineteen applications had been made in the course of three months, each application lasting ten minutes, and 180 to 300 milliampères being used. In other cases hemorrhage had been controlled and decided improvement obtained, and in no case had the treatment caused inconvenience. Apostoli's directions had been strictly carried out in all cases, and the author gave as his opinion that while electrolysis was a powerful agent for treating some fibroid tumors successfully, we must not expect too much from it, as in some cases it failed to be of any benefit. At present it is desirable that all cases



which are treated should be reported, as a positive conclusion cannot yet be reached from existing data. Cases in which there is subinvolution, endometritis, or hemorrhage can hardly fail to be benefited. The author was in the habit of using a battery consisting of fifty-one pint Leclanché cells, a double collector, a water rheostat, and a Gaiffe's galvanometer.

#### Capillary Drainage of the Peritoneum.

M. Pozzi made a communication to the French Society of Surgery, on capillary drainage of the peritoneum after laparotomy. It is now admitted that after certain laparotomies, drainage of the peritoneum is necessary. According to M. Pozzi, the indications for this drainage are:

1. Danger of a considerable flow of blood when the peritoneum has been much lacerated, and when resorption by the serous membrane of the effusion of blood would seem to be very difficult.

2. Danger of a septic and infectious ooze after the closing of the abdomen.

M. Pozzi then said he would not enter into a discussion of the advantages and disadvantages of peritoneal drainage after laparotomy; he would confine himself to showing how, up to the present time, the drainage has been effected (*i. e.*, tubes of glass or rubber placed in the lower part of the cutaneous section, etc.). But this mode of drainage is sometimes unsatisfactory because the liquids are insufficiently conducted outward, and there is resorption of putrid matter. It is for this reason that he tried the use of iodoform gauze (nets and tents). The fluids rise in these gauze bands by a *vis a fronte*. This mode of drainage has been used by Hegar and others, since 1882, but in a timid way. Surgeons who use this method of drainage placed their gauze

bands in a glass tube (a kind of abdominal speculum), which they stuffed and then emptied. In 1886, Mikulicz conceived the idea of placing in the very middle of the abdominal cavity a sac of iodoform gauze filled with strips of the same material.

M. Pozzi has done the same in three cases.

1. An intraligamentous cyst, the peritoneum being much lacerated during laparotomy; capillary hemorrhage abundant; ooze persistent. He placed some folds of iodoform gauze in contact with the abdominal cavity, one piece being placed in the true pelvic cavity. There was a small fistula for two months.

2. An intraligamentous suppurating cyst with the production of papillæ. He placed a sac of iodoform gauze, filled with strips of the gauze in the cavity; aseptic healing by first intention.

3. Pyosalpingitis. Tumor very much adhering to the rectum. Pus in the true pelvis during laparotomy. Drainage by Mikulicz's method. M. Pozzi withdrew the strips on the third day. Fecal matter was found in the wound. The rectum was perforated before, or had been during the operation. After a certain length of time the intestinal contents ceased to pass through the wound. There was in these cases an adhesion of the peritoneum in the true pelvic cavity. Everything went on in these cases as though one had shut the gateway of infection.—*Medical Register*.

#### Menorrhagia.

℞. Acid. gallici glycerini, P. B., ʒ j; acid. sulph. dil., ʒ ij; ext. ergotæ fluidæ ʒ iiij; aq. cinnamomi ad, ʒ viij. One-eighth part every four hours, in profuse discharge.

℞. Tinct. cinnamomi, ʒ ij; aq. cinnamomi, ʒ j. This draught every four hours.

℞. Ammonii bromidi, ʒ iss; tinct. digitalis, ʒ j; inf. cinnamomi ad, ʒ viij. One-sixth part thrice daily.

℞. Liq. ferri nitratis, ʒ 72; aq. chloroformi, ʒ viij. One-sixth part three times a day.

℞. Vin. ipecacuanhæ, ʒ xvj; tinct. aconiti, ʒ viij; aq. cinnamomi, ʒ ij. One teaspoonful every hour.

℞. Ext. cannabis indicæ, gr. ¼; ext. nucis vomicæ, gr. ¼; ext. gentianæ, gr. iv. For one pill, to be taken night and morning.

A wineglassful of vinegar or lemon juice; sometimes effectual.

℞. Tinct. hamamelis; sp. terebinthinæ, āā ʒ v. On sugar, three times a day.

℞. Liq. strychniæ, P. B., ʒ ss; liq. ferri perchloridi, ʒ 72; aq. dest. ad., ʒ viij. One-sixth part three times a day.

℞. Acidī gallici, ʒ j; tinct. opii, ʒ xliij; aq. chloroformi, ʒ viij. One-sixth part three times a day.

℞. Ext. hydras. canadensis, fl., ʒ xx. In water three times daily.—*Med. World.*

#### Amenorrhea.

PROFESSOR PARVIN prescribes the following in some cases of amenorrhea in anemic subjects, and the result in many cases has been gratifying: ℞. Ferri sulph. ex.; terebinth. albæ; pulv. aloes, āā gr. j. M. Ft. pil. i. Sig.—One t. d. The quantity of aloes may have to be reduced.

#### Mastitis.

Before his clinic a few weeks ago, Professor Goodman removed at one operation both breasts of a woman who has suffered severely for some years from interstitial lobular mastitis. Healing was by first intention, and the relief was complete.

#### DISEASES OF CHILDREN.

##### Some Remarks Regarding the Treatment of Cholera Infantum.

DR. WILLARD PARKER BEACH in an article published in the *N. Y. Medical Journal*, said:

Having been called to a case of cholera infantum, so called, in the great majority of instances it is wise to administer a purgative dose of castor oil, ʒ j. At the same time a poultice of ground flax-seed, containing two tablespoonfuls of ground mustard, should be applied over the entire abdomen; it should be thick and warm. After remaining sufficiently long to redden the skin very markedly, it may be removed, and from four to six layers of flannel wound about the bowels, which flannel may be removed by degrees after recovery. It may be necessary to apply the poultice more than once. Very strict injunctions should be made against handling or tossing the child. He should be kept as still as possible, not held, but allowed to lie on a hard bed, in as cool a place as can be found. His pillow should be made of some hard material, preferably of the "excelsior filling," which does not retain heat well. His clothing should be of the lightest texture, and very limited in amount. It is well to keep the baby out of doors as long as the sun is up, but to avoid night air with care.

From the first it will be helpful to give some alcoholic; probably brandy, in doses of half a dram every hour, is the best, this dose being modified according to the depression.

As for medication, I have found the following formula to work well in very many cases: ℞. Tinct. opii camph., bismuthi subnit., āā ʒ ii; ext. ipecac. fl., ʒ ss; tinct. kramerizæ, aq. q. s. ad., ʒ ij. M. Sig.: One dram every two, three, or four hours.

This prescription is to be used after the action of the castor-oil. Usually the child will suffer from great thirst, and possibly barley water, taken *ad libitum*, will satisfy him in this particular better than any thing. Should there be much nausea or vomiting, oxalate of cerium, in one grain doses will usually control it. Regarding alimentation, we should take everything from the list which is digested in the intestine. The best food is made from beef, mutton or chicken, in the shape of broths, care being taken to skim all the fat from the surface, or the various meat extracts may be used—such as Cibil's, Liebig's, or Valentine's. These meat preparations should constitute the entire food during the active inflammatory stage. Sometimes the child can digest the tenderloin of a porter-house steak, chopped into very small pieces, or the juice of a much underdone steak may be given, but nothing sweet or of a starchy nature, as most artificial foods are. In my experience, milk does not answer so well as the broths, although occasionally a small quantity of eggnog containing an alkali does seem to digest remarkably well.

If vomiting is a marked element in the case, it has been my custom to resort to rectal alimentation, with most excellent results. I usually employ a mixture of brandy, milk, and egg, or one of the above mentioned broths, and put nothing into the stomach as food. I am firmly convinced that many physicians do not appreciate the value of rectal alimentation in these various intestinal disorders of infants.

After convalescence has commenced, and, indeed, often during the severity of the attack, a patient will improve wonderfully if removed to a country, mountainous region. Sea air does not seem so helpful as that of the mountains. The

foregoing suggestions are offered for a child one year old, and must be modified accordingly.

I would add that even in breast-fed children the animal broths have seemed to work better than mother's milk in many instances.

The three points on which I would lay special stress are: 1. The administration of foods digested by the stomach absolutely. 2. That the child be kept away from the warm body of the mother, however much it may cry, and be allowed to lie on a hard surface in absolute quiet. 3. Rectal nourishment.

#### Recurrent Fever and Typhus Exanthematicus in Children.

DR. WOLBERG (*Rev. Mens. des Mal. de l'Enf.*):

In the course of four years the author treated in a children's hospital forty-seven cases of recurrent fever. The disease was most prevalent during the months of June, April, and August. Sex had no apparent influence upon the frequency or the gravity of the disease. It occurred most frequently in children under six years of age. There seemed to be no true period of incubation; the fever came on when the children were apparently in health, beginning with a violent chill, headache, abdominal and muscular pains, especially in the muscles of the lower extremities. In many cases vomiting was the first symptom, the tongue being coated, constipation being present, and also severe pain in the ileo-cæcal region. The second attack of the disease was frequently associated with catarrhal angina, with exudate upon the tonsils. In twelve patients the attacks were accompanied by delirium, especially during the night. During the day the children were apathetic, but not delirious. The spleen was enlarged in all cases: in only five

was there enlargement of the liver. Spirilla were found in the blood of all the patients, but not in the urine, the saliva, or the sweat. The highest temperature was  $41.6^{\circ}$  C. Usually defervescence took place abruptly, and was accompanied by profuse perspiration. There was also free epistaxis in several cases. The average duration of the first attack was four to ten days, and during the remission, which lasted from four to eleven days, the patients seemed quite well. There was no apparent relation between the duration of the attack and that of the remission, and in fourteen of the cases there was no second attack. The second attack was like the first, excepting that it was of shorter duration. In fifteen of the cases there was a third attack, the second remission averaging seven days. The symptoms in the third attack were milder than in the first. There were no complications and no fatal cases. The treatment was purely symptomatic. Quinine and salicylate of soda were given, but produced no effect.

Between the years 1878 and 1885 the author also treated in the same hospital with the recurrent fever patients fifty cases of typhus exanthematicus. The largest number of cases was seen during the spring and summer; none at all were seen during the winter. Of the fifty patients twenty-two were boys and twenty-eight were girls; the morbid process was also more intense and of longer duration in the girls than in the boys, the average duration with the former being fourteen and one-half days, and with the latter twelve days. The largest number of cases occurred between the ages of six and twelve years, but the younger the patient the more benign, as a rule, was the course of the disease. The duration of the period of incubation averaged eleven

days. The disease was plainly contagious, and in six instances the author saw two or even three members of the same family attacked by it simultaneously, but he saw only one case of direct contagion. The disease usually began with intense headache, febrile phenomena, and lassitude. Chills and vomiting rarely occurred at the outset. Delirium did not appear until the fifth to the seventh day, and at the beginning it was entirely nocturnal and subordinate to the fever. Towards the close of the disease the fever was continuous in many cases, while the temperature was low and there were hallucinations. The eruption appeared first upon the chest, and during the following day extended over the entire body. It usually appeared on the fifth day of the disease, and after continuing twenty-four hours began to disappear, all traces of it being absent by the tenth day. In the severe cases the eruption, instead of being a simple roseola, was accompanied by petechiæ and ecchymoses. In the first stage of the disease the headache and fever were accompanied by intense abdominal pain in the region of the cæcum and the umbilicus. Constipation and meteorism were always present and were succeeded by diarrhea. The tongue was coated, there was intense thirst, and no appetite. There was intense pain in the adductor muscles of the thigh and the muscles of the calf, sometimes in those of the back, and in the nucha, and rarely in the superior extremities and in the joints. In all the cases the lungs were affected, the customary complication being generalized bronchitis, which disappeared as soon as convalescence began. The spleen was more or less enlarged in all cases, but never the seat of pain. The liver was normal in every case. Hemorrhages occurred infrequently in the



form of epistaxis, cutaneous ecchymoses, and bloody stools. Desquamation of the epidermis resembling that of measles was sometimes present, and in several cases there was profuse sweating. The temperature reached  $40.2^{\circ}$  C. on the first day of the disease, and it did not vary much during the entire period of development. Defervescence took place slowly and progressively until the normal was reached. The pulse was full and rapid at the beginning, and subsequently it became slow and soft. In three cases there was a purulent discharge from the ear after the disease had been recovered from. There were three deaths, from scorbutic dyscrasia, noma and general collapse, and this low rate of mortality establishes a benign prognosis for typhoid fever in children, as a rule. The treatment was entirely symptomatic.—*Arch. Pediatrics*.

#### Summer Diarrheas of Infancy and Childhood.

DR. LOUIS STARR (*The Medical Standard*): The diarrheal affections of hot weather may be grouped under two heads, namely: 1st, ordinary summer diarrhea, or entero-colitis, and 2d, cholera infantum. The former is the more common and the more manageable, and so far from being a mild type of the latter, is a distinct disease, requiring its own methods of treatment. Summer diarrhea, or entero-colitis: Therapeutic measures often fail in relieving this condition when uncombined with rigid enforcement of the general rules of health. The main hygienic features to receive attention are the following: Fresh air must be secured by taking the child to a public square in the cool of the morning and evening, or, better still, by a morning or evening trip on the water. The heat of the day must be spent in as cool a room as can be had.

Coddling is to be discouraged, as many a stout mother has hastened her infant's death by too fond and constant nursing in the arms. The clothing must be as thin as possible, provided that woolen be always worn next to the skin. Twice or three times a day in very hot weather the whole surface of the body must be sponged with water at a temperature of  $80^{\circ}$  Fahr. and dried with gentle rubbing. The addition of rock salt renders these baths more bracing. Full warm baths must supplant the cold spongings if there be much prostration.

The diet is to be most carefully regulated as to quality, quantity, and intervals of administration. Sound cow's milk must form the basis of the food in bottle fed babies, and peptogenic powder is a very useful addition to it.

Medicinal treatment varies with the case. Should the patient be seen early in the attack, it is initiated by a laxative. A teaspoonful of castor oil with ten drops of paregoric, or the same quantity of spiced syrup of rhubarb, is sufficient for an infant of one year. Afterward, while the stools are yellow, homogeneous and not very frequent, alkalies and astringents are employed: *R.* Sodii bicarb., gr. xxxvi; syr. rhei aromat.,  $\mathfrak{z}$  iv; mist. cretæ, q. s. ad.,  $\mathfrak{z}$  xxiv. *M. S.* One teaspoonful every two hours for a child of one year.

When the stools are frequent, green, and acid in reaction, the following may be employed: *R.* Syr. rhei aromat.,  $\mathfrak{z}$  iv; bismuth subcarb.,  $\mathfrak{z}$  ii; syrupi acaciæ,  $\mathfrak{z}$  iv; misturæ cretæ, q. s. ad.,  $\mathfrak{z}$  xxiv. *M. Sig.*  $\mathfrak{z}$  i every two hours. At the same time the abdomen is to be reddened two or three times a day, with a weak mustard draught—one part of mustard to five of flour.

If the evacuations be liquid and contain whitish or greenish flakes, and the above treatment fail after a fair trial,

good results often follow a short mercurial course, thus: *R.* Pulv. ipecac. comp., gr. ii; hydrarg. chlor. nit., gr. ss; cretæ. preparat, gr. xxxvi. *M.* ut ft. chart, No. xii. *S.* One powder every two hours for twenty-four or forty-eight hours, or until the stools become yellow and homogeneous.

Should the stools be frequent and serous, more powerful astringents are used, as aromatic sulphuric acid, silver nitrate, or zinc oxide.

When the stomach is very irritable, rectal injections are resorted to, the drugs used being tincture of opium, nitrate silver, and ipecacuanha. Ipecacuanha is chosen where there is much tenesmus with the discharge of blood and mucus. It may be administered as follows: *R.* Ext. ipecac. fl., ℥. xii; tr. opii deod., ℥. viii; mucilag. acaciæ q. s. ad. 3 viii. *M. S.* Inject one tablespoonful every four hours. Stimulants—wine of pepsin, brandy or whisky—are given in all infantile cases where there is prostration.

In cases of recovery, the diet and hygiene must be carefully watched until all danger of a relapse has passed, the astringents are gradually dropped, and digestants and tonics ordered.

The antiseptic treatment recommended by L. Emmet Holt, I have lately tried with good results. It embraces the careful attention to regimen already alluded to, preliminary evacuation of the bowels with castor oil, and the administration of naphthalin or of sodium salicylate naphthalin is usually ordered as in the following prescription: *R.* Naphthalin; ground coffee āā, gr. vi; sugar of milk, gr. xxiv. *M.* ut ft. chart No. xii. *S.* One powder every two hours.

In conclusion it may be well to draw attention to the fact that the key-note of successful treatment seems to be the

maintenance of constant circulation in the contents of the intestinal tract. The object of this is to sweep irritating fecal matter or secretions away from the intestinal mucous membrane and give the latter an opportunity to recover from the catarrhal inflammation affecting it. Castor oil and calomel are the best drugs to accomplish this, and small, frequently repeated doses are to be preferred to single large ones, active purgation being undesirable. With bowels so swept, a bland, unfermenting diet, and attention to the health rules already mentioned, every aid is furnished to secure the successful action of such remedies as bismuth subcarbonate, naphthalin and sodium salicylate.

On the other hand should opium be used to lock the bowels, one great factor in the causation of the disease is fortified in its position, and an increase in the degree of inflammation almost invariably results. The opium used in the foregoing prescriptions is only intended to prevent griping or to secure retention in the case of the injection, not for the purpose of checking peristaltic action of the intestine.

In some cases, particularly where there is irritability of the stomach, milk in no matter what form, or how prepared, seems to keep up the disease. Under these circumstances my plan is to order one or two teaspoonfuls of raw beef juice every two hours according to the age. This diet may be continued for several days until the vomiting stops, and the movements improve in character, when a milk diet may be resumed.

One must not forget that a change of climate is a most efficient method of treatment, especially when the seaside is the objective point.

2. Cholera infantum: The large and frequent watery evacuations characteristic of this disease are such a drain

upon the system, that it is of the first consequence to replace the waste by food and drink, and at the same time check it by appropriate treatment. The irritability of the stomach is a formidable barrier to alimentation, nevertheless every effort must be made to give food in small quantities, and at short intervals. Should the infant be at the breast, it may be allowed to nurse for a few minutes every half hour or hour. If hand fed, it may be given the foods suitable in enterocolitis, or in chronic vomiting, in such quantities as can be retained and at intervals corresponding in frequency, to the smallness of the amount.

Bits of ice and water should be allowed freely, even though they be rejected as soon as swallowed.

To check the diarrhea opium and astringents are necessary. A very serviceable formula is the following: *R.* Liquor morphinæ sulphat, 3 i; acid sulphurici aromat.,  $\mathfrak{M}$ . xxiv; elix. curacoæ, 3 iv; aquæ, q. s. ad., 3 xxiv. *M.* Sig. One teaspoonful every two hours for a child six months old.

With this, two drops of laudanum, suspended in two teaspoonfuls of starch water should be given by the rectum every three hours. Two or three times daily a mustard plaster, one part of mustard to five of flour, must be applied over the whole surface of the abdomen, long enough to redden the skin, and the whole body should be sponged several times a day, with water at a temperature of 95° F.

The clothing, diapers and person must be kept perfectly clean, the sick room must be as large and airy as can be commanded and the infant must lie upon the bed and not be constantly nursed on the lap. If it be possible, the patient should be sent early to the seashore or country, as this affords by far the best chance for

recovery. Failing in this, morning and evening airings in a coach, or daily steamboat excursions must be made.

Stimulants are needed from the first, to ward off prostration—from five to ten drops of whiskey in a teaspoonful of limewater may be given every two or three hours at the age of six months.

When collapse sets in, the quantity of alcohol must be increased, and if the stomach can bear it, a combination of stimulants is useful, as:

*R.* Spt. frumenti, 3 iv; ammon. carbonatis, gr. xxiv; syr. acaciæ, 3 viii; aq. menthæ pip. q. s. ad., 3 xxiv. *M.* Sig. One teaspoonful p. r. n.

The temperature must be maintained by hot flannel wraps and hot water bottles, and the child be kept in a horizontal position, and disturbed as little as may be.

In this stage astringents are still indicated, but opium must be used with great caution, or even discontinued entirely, when there are cerebral symptoms and semi-coma.

In the fortunate instances in which this plan is successful, it is still necessary to treat the succeeding diarrhea, and to build up the general health by good food, tonics and fresh air.

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## OBSTETRICS.

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### A Remarkable Vaginal Septum.

DR. JOHN D. S. DAVIS (*Annals of Gynecology*):

I was called to attend Mrs. S., German, aged 21 years, primipara. I found the os dilated one inch in diameter, and the neck of uterus and vagina divided by a continuous broad, thick, double septum. The vaginal wall and that of the septum presented a similar touch and appearance. Ocular examination revealed complete rudimentary external





Fig. 1.



Fig. 2.

[ANTERO-POSTERIOR SECTION.]

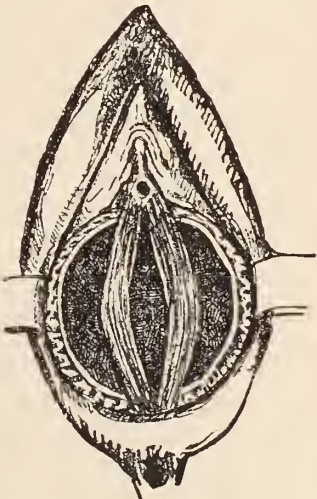


Fig. 4.

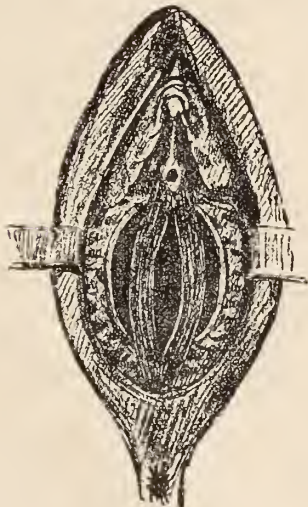


Fig. 3.

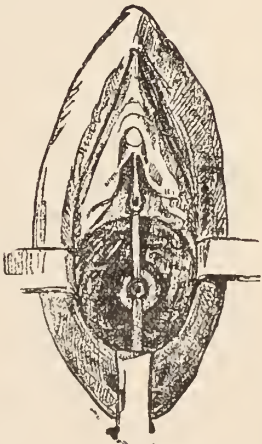


Fig. 5.



Fig. 6.



female generative organs completely enclosed within the otherwise normal external generative organs and vagina. See Fig. 1.●

The labium majus and minus of the rudimentary pudendum were covered with integuments, and the intra-vaginal extension was mucous and identical in appearance with the surrounding mucous membrane of the vagina—furnished with the transverse ridges (cristæ) peculiar to the vaginal wall, except the part attached to the neck of the uterus, which part was aponeuretic and fibrous. See Fig. 2. It illustrates the septum completely revealed by dissection or division of the vagina. The membranes had ruptured before my arrival. The condition of the parts, showing the septum slightly on the stretch, and the os very much dilated, may be seen in Fig. 3.

My brother, Dr. W. E. B. Davis, saw the case with me one-half hour later, when the os had completely dilated and the soft parts were placed on the stretch. See Fig. 4.

I separated the superior attachment by means of a long pair of scissors, dividing all along close to the superior or anterior vaginal wall, without hemorrhage; the inferior attachment was then likewise divided, with hemorrhage from the mouths of four divided arteries. I applied four hemostatic forceps until delivery of the child was complete, after which I ligated the arteries. The child, male, weighed  $6\frac{1}{2}$  pounds, and was perfect in health and form. On the third day a slight fever—temperature  $100^{\circ}$ —appeared, but subsided in a few hours without treatment. Fig. 5 illustrates the appearance of the vaginal cavity and the neck of the uterus after complete recovery, showing the line of division both in the anterior and posterior vaginal walls, and the anterior and posterior neck of the uterus.

a

This case is reported on account of the unusual manifestation of nature in creating a double track to one uterus, and in so doing utilizing the same muscles, tissue, and integuments employed in the development and composition of the pudendum and vagina. A dissection of the pathological specimen revealed in the vaginal portion, glands, and ridges, identical with that of the normal vaginal tissue; and the rudimentary labia majora and labia minora were found to be composed of integument, areolar tissue, fat, and muscle,—demonstrating clearly that the muscle vaginae in its return from the sphincter ani, as shown in Fig. 6, split or gave off enough fibers to form a second or inter-vaginal ring.

The lady said, when a girl, she knew that she was not natural and like other girls; but having her sickness regularly, experiencing no inconvenience whatever, she consulted no one about her condition. She followed her lover from Germany to this city to marry him. She enjoyed the nuptial night, with the male organ, on either side of the septum,—experiencing no difference in the sensation. She managed to conceal the true condition from her husband until the day of confinement. He recognized nothing unnatural, save “a bulging down there,” as he expressed it.

#### The Mechanical Treatment of Abortion.

DR. H. W. LONGYEAR, Detroit, Mich., in an article published in *Annals of Gynecology*, says:

Having nothing new to offer in the way of preventive measures, I propose to confine myself to the consideration of treatment after all means of prevention have been found unavailing.

Who of us has not passed days and hours of anxiety because of these tedious and often dangerous cases? The sudden

and urgent summons comes ; the young doctor goes, after hastily selecting the necessary appliances ; on the way, running over in his mind all the means which he has been taught to use, and by the time he has reached the bedside he is ready for action.

He finds the patient three or four months pregnant, weak from the loss of much blood, and still having dangerous hemorrhage. Examination finds the os uteri not sufficiently dilated to admit of the introduction of the finger,—nothing presenting,—pains irregular but weak. Though the patient is much alarmed, and weak from loss of blood, she is reassured by the doctor, who goes confidently to work. He removes the clots from the vagina, and then proceeds to pack that canal to its utmost extent with cotton tampons, and by the time he has crowded in the last pledget the poor woman feels ready to burst ; or, perchance, the same ends, so far as utility, pain, and discomfort are concerned, he attains by the use of the *colpeurynter*. She is now suffering much more than before, but the doctor tells her that it is the only thing to do to save her life, gives her an opiate, leaves with the consciousness of having done his duty, and if he has had some previous experience with imperfectly packed vagina, feels confident that this time the vagina is filled to its utmost capacity.

In an hour or two, however, doubts on this point begin to oppress him, and he runs in to see his patient, only to find her suffering great pain, notwithstanding the opiate, though not troubled by any more hemorrhage. In two or three hours hemorrhage begins again. The tampon is removed and a new one substituted, the os being still too small to admit the finger. The parts have now become excessively tender, but the cotton must be packed more thoroughly

than before, in spite of the piteous cries and entreaties of the tortured patient.

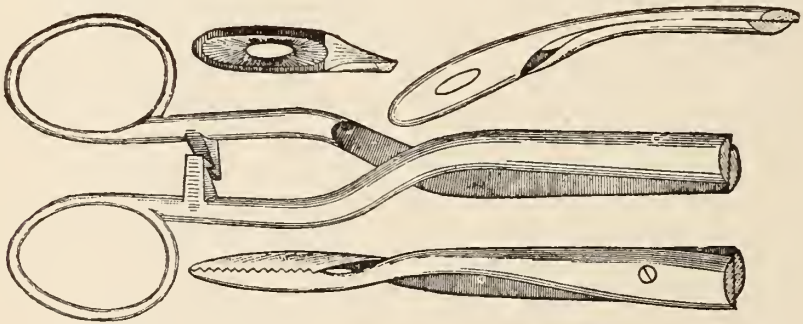
This proves effectual as the flow ceases and the pain increases. Opiate and reassurance again administered. Everything is now going well, although the patient is in great agony and is becoming somewhat feverish. She is now left for the night, with instructions that the doctor be immediately sent for should hemorrhage recur.

The doctor has a good night's rest, and arises in the morning confident that his patient is safe. He makes his first visit there, and finds everything as he expected. The labor pains have ceased, and hemorrhage has not recurred. The pledgets are removed, and with the last come the long looked for secundines. They are soft, torn and pulpy ; and as nothing can be felt at the now contracting os, the physician, hoping that nothing is left behind, washes out the vagina with an antiseptic fluid, evacuates with catheter the distended bladder with its paralyzed sphincter, gives now entire reassurance and something to counteract the bad effect of his opiates upon the secretions, and leaves, congratulating himself that he is through with the worst part of one of those cases which are the *bête-noir* of his practice. It is still necessary, however for him to visit the patient for several days ; and if luck has favored him, and nothing has been left in the uterine cavity, she makes a slow recovery, suffering from weakness and nervous exhaustion, resulting from shock and loss of blood.

The foregoing I consider as by no means an uncommon case, and I am sure that the most of us have had much more severe ones. Now, the question is, is it necessary to subject our patients to the tedious torture—mental, as well as physical—of the tampon, or the still more barbarous, though shorter, method

of evacuating the uterine cavity with the finger, after sufficient dilatation has taken place? I do not deny that these methods are often useful, and I admit that, in a very few cases of abortion occurring after the fifth month the tampon might be necessary; but I do object to their use in the majority of cases occurring under the fifth month of gestation, as brutal and unscientific, and I maintain that other methods comparatively painless, more scientific, sure to remove all the contents of the uterus, and less dangerous, can be substituted. As a means to these ends, and being fully convinced that it is safest for the patient to have the uterine cavity evacuated at the earliest possible moment, after abortion had become inevitable, I began using six years ago, the instrument which I here show you.

forceps were made afterwards with which the operator is able to manage cases of flexion or version without difficulty. I prefer the straight instrument, in ordinary cases, as it can be more accurately guided. My method of procedure is very simple. The patient is placed in the lithotomy position across the bed, on which she is lying (the operator sitting in a chair facing the bed). It is understood that a thorough cleansing of the external genitals and vagina, as well as of the hands and instrument of the operator, with the customary antiseptic solutions must precede this operation. One index finger is then passed into the vagina to the os, to serve as a guide to the instrument, which is passed closed into the uterus, then gently opened as far as the uterine walls will permit and gently closed, pressed a little to one (or



Since that time I have used it in every case demanding manual treatment, have tamponned but once, and have been obliged to see my patients but two or three times.

Generally, the instrument has been used at the first visit, and another visit has been made the first or second day following, to ensure safety. As a rule the second visits have not been necessary. The exception was a case of anteversion in a fleshy patient where it was impossible to use the straight forceps, and I was obliged to resort to other means to remove the secundines. The curved

the other) side of the uterus. If any thing is felt within the grasp of the instrument, it is withdrawn and deposited in a vessel placed conveniently near the edge of the bed. The forceps are to be repeatedly inserted and every part of the uterine cavity explored until the removal of every portion of placenta is assured. After this operation, which can be accomplished in from fifteen to thirty minutes, the patient can be confidently assured that the contents of the womb have been entirely removed and that she will have no further trouble.

It is very easy with the instrument to

feel the difference between the firm uterine tissue and that of the softer placenta. The patient should also be instructed to complain, if caused any sharp pain, as from pinching by the instrument. It is unnecessary either to use force or cause pain, and the patient can be promised a comparatively painless operation.

The instrument is so constructed that the slightest dilatation of the os will allow of its use, its jaws also opening in such a manner, while in the uterus, as not to appreciably enlarge the mouth of the womb. It is not intended that this instrument should be used as the ordinary placenta forceps, to remove the secundines entire—although this can occasionally be done; but it is to be used when the os is comparatively undilated and the placenta wholly or in part adherent, or in any case where severe hemorrhage or other reason demands the immediate evacuation of the uterus.

As illustrating the range of usefulness of this method of treatment, I cite the following cases:—

1. Mrs. J. B., aged 29, fourth pregnancy, end of second month. The patient lived in the country, and had been having considerable hemorrhage for two days, and was still losing a good deal of blood, and having occasional slight pains. The internal os was well dilated and the external to about the diameter of a lead pencil, through which I could feel the unruptured membranes. It was impossible for me to remain with the patient or see her again for forty-eight hours. So, considering abortion inevitable, I ruptured the membranes with the forceps and removed the contents of the uterus in the manner above described. The placenta was adherent over the greater part of its surface, and had to be removed by grasping small fragments at a time, by a gentle twisting motion of

the instrument, tearing them from the uterine surface.

The operation occupied about fifteen minutes, after which the uterine cavity and vagina were douched with a bichloride solution (of the strength of 1:6000). All active hemorrhage and pains having ceased, the patient was left with the simple instructions to remain quietly in bed and take a light diet until my next visit, two days later, when I found her feeling quite well.

2. Mrs. F., aged 38, multipara, two and one-half months pregnant. She had just returned from a trip up the lakes, during which she was suddenly seized with severe pains, and hemorrhage four days previous to my visit, when a mass passed from the vulva, which the attending physician told her was the contents of the womb, and she had been assured that no further trouble would ensue. The flow had continued moderately ever since, with occasional pains. On examination the os was found patulous, but very slightly open, the cervix long, and nothing presenting.

The patient being placed in the proper position, the forceps were introduced and a small mass readily grasped, near the fundus on the left side. It was adherent, was removed piecemeal, and proved to be a fragment of the placenta, weighing about a dram. The anti-septic douche was used as usual. The patient had no more trouble and made a rapid recovery.

3. Mrs. S., aged 27, multipara, two months pregnant. She had had some pain and slight hemorrhage for several days, which had increased somewhat during the previous night. On examination the uterus was found completely anteverted, the cervix lying up against the sacrum and very difficult to reach. When brought down it was found to be long and hard. Being in doubt con-



cerning the death of the fetus, and the flow not being dangerous, preventive measures were used for twenty-four hours. At the expiration of this time, the symptoms increasing, it was deemed necessary to empty the uterus. The cervix was now somewhat shorter, but the os was only very slightly dilated. I found it impossible to use the straight forceps without causing the patient a good deal of pain in efforts to keep the displaced uterus in proper position. I therefore had recourse to the curved forceps, and succeeded with but little difficulty, in emptying the organ. This was the most difficult case in which I have used the instrument, the uterus being so much out of position and the patient quite stout.

The cervix in such a case might be held in place by a double tenaculum; but I never have used it, my aim being to operate with the least possible pain and danger to the patient, and the least injury to the parts. A tenaculum is so liable to tear from its position, that a foundation may easily be laid for additional trouble.

This patient had no further pain or hemorrhage and made a slow recovery, owing to the existing displacement.

4. Mrs. C., aged 36, multipara, five months pregnant. She had just returned from a summer resort, and did not know that she was pregnant, as she had menstruated irregularly for the previous six months. The last menstruation, as she supposed, began two weeks before, and had gradually increased till her return, the day previous to my visit, when regular pains commenced, and during the evening she felt something suddenly pass from the vulva, and sent for me in great alarm, not believing then that she had been pregnant. I found a dead fetus lying outside the vulva, with cord attached. The uterus was contracting

about every five minutes, the os had almost closed, and would contract with each pain. By some effort I could introduce my finger, and felt the edge of the placenta high up in the uterus. She had lost, and was still losing, a good deal of blood; the heart's action was very weak and somewhat irregular. A liberal quantity of brandy was given and expression thoroughly, though vainly tried. Having no instrument with me but these forceps, I proceeded with them to remove the placenta, piece by piece, and was able to accomplish its complete removal in a little over half an hour. The uterus and vagina were douched as usual. The uterus contracted well afterwards, and the patient was comfortable for the remainder of the night, and made an uninterrupted recovery.

5. Mrs. M., aged 40, multipara, three and one-half months pregnant. I was called in the night and found her lying in bed with her night-dress, a folded sheet, several napkins, and a large part of the bedding drenched in blood. Bleeding was still profuse, pulse rapid and weak, and face blanched. Brandy had already been liberally given, and the patient was immediately placed in position with the head low. The os was sufficiently open to admit the index finger, and the placenta was felt above the internal os, which was not largely dilated. The placenta was grasped with the forceps, and, by careful manipulation, removed almost entire, only a few fragments remaining, which were easily found and removed. After the use of the antiseptic douche, the patient was cleansed and dried, warm and dry clothing substituted for the wet and soiled, and she was left, within an hour from the beginning of the operation, feeling perfectly comfortable. With the exception of weakness from the loss of blood, she made a rapid recovery.

## DISEASES OF WOMEN.

**Abdominal Surgery.**

DR. E. C. DUDLEY, of Chicago, in an able paper recently read before the Chicago Gynecological Society, summarizes his ideas on the management of these cases as follows :

*Preparatory Treatment.*—Unless there was some special indication to the contrary, the preparatory treatment was short and simple, occupying not more than two or three days, as follows : A cathartic about forty-eight hours before the operation, repeated vaginal douches of hot castile soap-suds, with thorough cleansing of the external genitalia and of the entire abdominal wall, especially of the umbilicus. One or two general shampoo baths or, if practicable, a Turkish bath with a lather shampoo of the hair. The hour for operating has been 9 o'clock in the morning, a cup of beef-tea having been given two or three hours before. Previous to the day of the operation diet is not restricted or modified.

*Antisepsis.*—Antiseptic drugs, as a rule, were not used in connection with the operation. They were employed for the purpose of rendering hands, instruments and patient surgically clean, and then thoroughly washed off with water which had been sterilized by filtering and thrice boiling ; that is, antiseptic drugs were not brought in direct contact with the wound. Sponges which had been kept in weak solutions of sulphurous acid, carbolic acid, or corrosive sublimate, were never used until these drugs had been thoroughly washed out with sterilized water. Indeed, everything that was to be in direct connection with the operation was treated in this manner. Fumigation of the patient's room has only been done when it had previously been occupied

by several cases or by a suspicious case. Sometimes, as a matter of ceremony, a little iodoform was sprinkled over the wound before the dressings were applied, but it smells bad and may do harm by exciting or keeping up nausea. If in the toilet of the peritoneum there be blood, oozing points, or pus, or if these be even suspected, I wash out the abdomen freely, putting in quarts or gallons of water, and when in doubt whether this should be done, I remove all doubt by doing it.

The same rule applies to drainage. If in doubt, always drain. I have recently lost a patient whom drainage might have saved. The adhesions were extensive, but the abdomen being perfectly dry, I closed without drainage. She did badly for the first thirty-six hours. I reopened ; there had been no hemorrhage, but the abdomen contained an abundance of bright red serum. If this had not been allowed to accumulate at all, the result might have been different. The glass drainage tube is always preferred. The tubes kept in the shops are too large. I have had some made, of the diameter of lead pencils, having the shape of test tubes, with many small perforations the size of a pin head at the closed end. Two or three of these tubes may be introduced if desired. They do no harm ; they can be removed if nothing comes through and the openings immediately close, and they carry off the bloody serum or other fluids as efficiently as tubes of large size. Drainage not only prevents septic infection but, by keeping the abdomen dry, serves as a hæmostatic, as moisture favors hemorrhage. It is important that the perforations at the end of the drainage tube be quite small, otherwise portions of omentum are apt to work themselves through and make trouble in the removal of the

tube. I have recently had two such cases; in one the tube was nearly half full of omentum which had worked its way through an opening only  $\frac{1}{16}$  of an inch in diameter. This annoyance may be in a measure prevented by giving the tube a turn or two whenever the dressings are opened.

*Medication and Diet.*—The cases included in this report have recovered with very little medicine, some without any at all. Opium has been used very exceptionally. A patient who begins to take opium for pain after abdominal section ordinarily continues to have the pain and to require the opium; but if the drug be withheld, the pain generally subsides.

It is perhaps not too much to say that the modern treatment of peritonitis by catharsis, judiciously employed, is sound. Not less than half of my patients after abdominal section have a cathartic before the end of the third day; the others are usually treated with copious enemata of stiff soap-suds in which a teaspoonful of turpentine to the quart has been thoroughly mixed. Upon the least suspicion of distention an action of the bowels should be secured.

During the first twenty-four hours no food whatever is given; only a little hot water, or ginger ale, or possibly champagne. On the second day a little barley water is cautiously given, soon to be followed, if there is no disturbance or nausea, with half-teaspoonful or teaspoonful doses of milk, repeated occasionally and increasing in quantity, as the patient gives evidence of being able to bear it.

*The Staffordshire Knot.*—Three years ago I saw Mr. Tait apply the Staffordshire knot. In the first case after my return I attempted to apply it and the patient died of hemorrhage. The next

year I saw Mr. Tait operate fifteen or twenty times, and particularly observed his method of applying this knot, and since then have used it invariably, and consider it, generally speaking, the best ligature. A distinguished surgeon in New York has lost a number of patients from hemorrhage with the Staffordshire knot and has discarded it as dangerous. Indeed, a number of operators have had most unpleasant experiences in its use.

The secret of Mr. Tait's success lies in a single manœuvre. After the pedicle has been transfixed, the loop drawn through and brought over to the point of transfixion, and placed between the two free ends of the ligature, these latter are held firmly between the thumb and finger of the left hand close to the point of transfixion. Then with the right hand he catches each free end separately and draws the ligature perfectly tight, and while the thumb and finger of the left hand still hold the thread at the point of transfixion to prevent the ligature from slackening again, the operator, with his right hand, aided by assistant, makes a hard knot.

An additional precaution to prevent the ligature from slipping may be wisely observed by transfixing at two points, first forcing the loop through at the juncture of the Fallopian tube and uterus in a direction from the operator, then carrying it along on the further side of the broad ligament, and drawing it through again, in the direction of the operator, transfixing at the hilum of the ovary. The loop may then be drawn over the tube and ovary, and that portion of the broad ligament which it includes, and tied as already described. This modification of the Staffordshire knot which, I am informed, Mr. Tait also occasionally employs, makes hæmorrhage doubly certain, and is to be preferred on this account.

A word about the silk. The great annoyance which every operator has experienced in breaking a thread at a critical moment, while attempting to apply a firm ligature, is sufficient proof that the silk ordinarily sold by instrument makers is generally inferior and often worthless. A variety of twisted silk, known as "Chinese Grass," may be found at the fishing-tackle shops. For surgical purposes it is unexceptionable, inasmuch as it has the qualities of absolute purity and great strength.

*The Arrest of Menstruation.*—One of the chief objects in the removal of the uterine appendages, in a great majority of cases, is to arrest menstruation; in other words, if menstruation be not arrested, the operation in very many cases fails. In the early history of the operation the ovaries alone were removed, or the ovaries and a part of the tubes. It was found in some cases that menstruation continued as before or increased. Then the tubes began to be removed also, and the complete arrest of menstruation was more frequent. It was further found that if the tubes were removed entire, close to the uterus, menstruation was almost always arrested, and that in many cases which were thought to be exceptions, the tubes in reality had not been entirely removed. Oftentimes a small knuckle of tube was discovered to have been left, and to be so closely adherent to the uterus that it escaped notice. The removal of this knuckle has been known to arrest menstruation. Reasoning from these facts, it was concluded that the tubes really have more to do with menstruation than the ovaries.

Contrary to this idea, Dr. Arthur Johnston, of Danville, Kentucky, in a conversation with me several months ago, said that the true explanation of these facts might involve an entirely

different conclusion. There is a little plexus of nerves in the broad ligament, in the angle formed by the uterus and Fallopian tube. When the tube is entirely removed, this plexus of nerves is entirely removed also, and on this account it may be that menstruation ceases, rather than on account of the removal of the tubes.

If this be true, it is a fact of immense value. Possibly a ganglion may be found in this region, and it may follow that the removal of this plexus alone, without reference to the ovaries and tubes, may arrest menstruation.

*The Incision.*—The opening into the abdomen has in most instances been short. Surprising as it may seem, it is sometimes easier to perform difficult manipulations in the abdomen through a small opening than through a large one. The large opening permits the intestines and omentum to rise up in the way of the operator, and to render inaccessible the field of operation. With the small incision, a soft sponge or two will keep the intestines entirely out of the way, and although the field of operation may not be as easily drawn up to the incision, the small abdominal wound can be easily forced down to the field of operation. This is even true of large ovarian cysts with extensive adhesions. After the removal of the fluid, the lax abdominal wall permits the opening to be moved about to almost any part of the cavity. In many instances the short incision enables the operator to do his work with the minimum amount of operating, and for obvious reasons, with minimum risk.

It is well, in closing the abdominal wound, to tie the sutures with bow knots, leaving the ends long, in order to obviate the necessity of introducing new sutures, in case it becomes desirable, at any time, to reopen the wound.



*General Remarks.*—It has so happened that in almost all of these cases there has been a steam radiator under the window before which the operations were done, the patient's feet being toward the window. This insured a constant warmth of the feet during the operation, and perhaps has in some degree contributed to the freedom from shock.

In removing the appendages, the toilet of the peritoneum may be much facilitated by forcing a soft sponge down into the cul-de-sac of Douglas as soon as a tube and ovary is drawn up into the wound to be ligatured; two or three sponges may be required. If there is much oozing, they may be frequently changed. By this means the blood is immediately taken up by the sponges, and when these are removed the peritoneum is dry. Otherwise blood would find its way into the cul-de-sac and form a clot which may escape notice.

#### The Primary and Final Results in Operations for Prolapsus Uteri.

COHN (*Ztsch. f. Geb. u. Gyn.*) concludes:

1. The continuous catgut suture gives the securest guarantee of primary union in addition to relative ease and rapidity in the performance of the operations. The objections which have been made to catgut are not valid. The superficial union of the wound obtainable by this means gives a firm cicatrix which is favorable to a permanent result.

2. Colpo-perineorrhaphy may be the means of permanently curing even extensive conditions of prolapse. Hegar's method answers fully the demands which may be made upon it. The reasons for failure as regards complete healing in nearly half of the author's cases are as follows: *a.* Some of the cases which are referred to recurrence of the cause

of operation are not recurrences in the proper sense of the term, but simply cases in which healing did not take place. *b.* Some of the recurrences are attributable to incompleteness of the operation, only anterior colporrhaphy having been done. *c.* The other recurrences are due to such factors as severe parturition, quick repetition of pregnancy, and particular anatomical conditions of the posterior vaginal wall. In order to obtain permanent results from operations of this character it is desirable:

1. In conditions of prolapse to operate upon the posterior vaginal wall at the earliest possible moment.

2. To narrow the vagina as much as possible throughout its entire extent by the high operation of posterior colporrhaphy.

3. To make as high a perinæum as possible, bringing forward the narrow introitus. The higher the perineum, the firmer the pelvic floor, the more the vagina is drawn forward, the more favorable will be the chances of permanent recovery.—*N. Y. Medical Journal.*

#### New Operation for Incontinence of Urine in Women.

At the meeting of the British Gynecological Society, Dr. WILLIAM ALEXANDER read a paper on this subject, in which he said that the first case he operated upon was a woman belonging to the theatrical profession, who often had to retain her urine for unduly prolonged periods of time. This ultimately determined a paralysis of the sphincter of the urethra. To remedy the distressing effects of this condition of things, various methods of treatment were employed, but in vain, and ultimately he dissected out the urethra and led it into the rectum, hoping to utilize the rectal sphincter for the retention of urine. At

the third attempt he succeeded, and the patient was much relieved. He also read the notes of two other cases on which he had operated for vesico-vaginal fistulæ by closing the vulva and carrying the urine into the rectum.—*Med. Press and Circ.—Med. and Surg. Reporter.*

#### Double Uterus and Vagina.

DR. L. H. DUNNING, in his paper read before Society of Obstetrics, and published in the *Med. and Surgical Reporter*:

When pregnancy occurs in a double uterus the unfavorable position of the impregnated uterus is apt to cause miscarriage or difficult labor. These abnormalities are usually confined to the uterus and vagina, the ovaries being rarely implicated. This is readily explained by the fact that these organs are developed from separate germinal bands. Of great interest are the anomalies of menstruation. In addition to the healthy action of the ovaries, there must be a communication between the tubes and uterus, and of the latter organ with the vaginal outlet, to establish normal menstruation. If, owing to malformations, there be any obstruction, there may result various anomalies. One-half of the uterus may become impregnated whilst menstruation occurs from the other half, or pregnancy may occur in both divisions, with different periods of impregnation. This departure from normal menstruation shows the important influence of the uterus over this function. The effect of a duplex vagina over pregnancy is but little described by text books. Whilst impregnation may take place, labor may be delayed at either by the presence of this septum. It may become torn through the progress of labor, or must be artificially divided before the latter can be completed. The essayist said it may be incised, or removed by the galvano-cautery. Personally, he

favoured excision and suturing the edges. If an incision be made, it should be crucial. The time of interference is of some importance; if the anomaly be discovered but shortly after pregnancy, it is better to wait until the fourth or fifth month before operative measures are resorted to, as pregnancy is less likely to be interrupted at this time than in the earlier months. At all events it is better to cut the septum than to allow it to be torn away during labor.

Finally, the author came to the following conclusions :

1. Congenital malformation of the uterus or vagina are more frequent than is usually supposed.
2. Of the different anomalies, uterus bicornis is the most frequent form—over fifty per cent.
3. The fecundity of women thus affected is not materially diminished.
4. As a result, however, difficult labors are more numerous.
5. In all established cases of uterus bicornis pregnancy has thus far occurred.
6. The forms of malformation of the uterus in which abortion or miscarriage are most apt to occur are the uterus didelphys and uterus bilocularis.
7. Both divisions may be pregnant at the same time and in different stages.
8. Disorders of menstruation are very apt to occur.
9. The amount of the menstrual fluid when normal is small.
10. Menstruation may occur simultaneously from both uteri, or one may alternate with the other.
11. The disturbances caused by these anomalies shows the important part that the uterus plays during female life.

Dr. W. H. Taylor, of Cincinnati, in opening the discussion, stated that in the past two years he had seen two cases of duplicity of the uterus and vagina.

One was a case of complete separation of the vagina, the septum extending from the ostium vaginae up to the os internum of the uterus (os bilocularis). This woman became pregnant, and at term, the child, in breech presentation, straddled the vagina and tore a portion of the septum away in its descent. The untorn portion had then to be divided. This case occurred in the Cincinnati Hospital. The other case did not become pregnant. Here the partition extended only from the external genitalia to the os (vagina bipartita). This is a much rarer form of malformation. Courty says a double uterus without double vagina occurs one hundred times, whereas a double vagina without double uterus only fifteen times.

Dr. Goodell reported a case of double uterus in which he had made an erroneous diagnosis of extra uterine pregnancy, and as such presented it before his class. He had passed the sound into one horn of the uterus to demonstrate as he thought, the extra uterine pregnancy, and he was only prevented from making a serious blunder by observing the contractions under his hands of the pregnant uterus, and the delivery followed a few days afterwards.

Dr. Kelly, of Philadelphia, said he had seen six cases, of which one was recorded in the *Medical News*, a uterus septus with vagina septa. The introduction of the Goodell speculum plainly showed the menstrual fluid coming away in drops from each half. He had one case of vagina subseptata, the lower portion of the vagina being divided, whilst the upper was normal. This case presented some difficulty in coition. In another case he removed a parovarian cyst, since which time the patient conceived and passed an ordinary labor. He would call attention to one peculiar-

ity as a means of facilitating diagnosis in bimanual examination, namely, the depression of the fundus in double uterus. Also the flattened shape of the fundus may be recognized in another form, as the famous case of undeveloped uterus of Rokitansky.

#### Curettage in Endometritis.

BOUREAU (*Nouv. Arch. d'Obst. et de Gyn.*) offers the following conclusions respecting this operation:

1. Intra-uterine therapeutics realizes the only logical and rational treatment which is applicable to lesions of the uterine mucous membrane occurring in the evolution of an acute process.

2. Intra-uterine therapeutics should be radical, and necessitates the use of destructive agents capable of removing the last vestiges of the morbid tissue. Experience has shown that incomplete destruction of the diseased mucous membrane is almost always followed by a recurrence of the trouble.

3. Chronic endometritis of the body of the uterus is one of the most rebellious affections, and will yield only to destructive processes.

4. Such processes may be either caustics or cutting instruments.

5. The instruction which is furnished by a great number of cases is that the curette is superior to caustics, both as to its action and as to security.

6. Curettage alone and curettage combined with *écouvillonnage* (sponging or swabbing out) are operations which can be practiced without submitting the patient to the least danger, always on the condition that the contra-indications are observed and a rigorous antiseptics practiced before, during and after the operations. The action of creasote as a caustic does not have the same danger which attends the use of those caustics which produce an eschar.

7. In the statistics of Doléris's clinic for 1887, one hundred and ten operations of curetting are recorded, with only one accident resulting. This occurred in a turbulent patient in the form of a mild attack of of perimetritis, from which she rapidly recovered. To these one hundred and ten cases may be added nearly four hundred additional ones performed in previous years without accident or complication which was worthy of notice.

8. Antiseptic *écouvillonnage* may be practiced alone in all forms endometritis, especially in mild and recent cases. In long standing hemorrhagic, vegetating and polypoid varieties it is to combine curetting with *écouvillonnage*.

9. The *écouvillon* brushes the uterine cavity systematically, completes the action of the curette, and relieves the intra-uterine surface of the *débris* left adherent by the curette. It also furnishes an excellent opportunity whereby one may apply creasote to the surface which has been scraped.

10. Curetting may be considered a perfect curative means for different forms of metritis, especially for hemorrhagic metritis. In the latter condition it always gives good results, even after all other means have failed. It is sometimes necessary to repeat the operation at intervals more or less remote.

11. Curetting is not only a therapeutic agent which is worthy of great esteem; it is also an exploratory measure which is often indispensable, for it enables one to establish an exact diagnosis by furnishing a layer of mucous membrane which can be submitted to microscopic examination. Exploratory curetting is also entirely harmless; the pain which attends the operation is quite supportable, and it may be done without causing the patient to remove her clothes.

12. The first menstruation which is due after curetting is usually missed, but the second comes on normally.

13. Curetting favors fecundity.—*N. Y. Medical Journal*.

#### The Principles of Practice Involved in the Extirpation of the Uterine Appendages when not the Seat of Tumor.

DR. C. A. E. REED, in an address delivered August 1, 1888, before the Medical and Surgical Society of Illinois, and published in the *Journal American Medical Association*, summarized his remarks as follows:

In conclusion, then, let us answer the inquiry, When should the general practitioner advise extirpation of the uterine appendages?

1. In cases in which, after adequate investigation, he is assured that there is intra-tubal accumulation.

2. In cases in which, from congenital deficiency of some of the organs, there can be no healthy exercise of the menstrual function.

3. In cases of chronic ovaritis, giving rise to intolerable pain, and in which cure has been demonstrated as impracticable by conservative means.

4. In cases of irreducible displacement of the ovaries giving rise to severe pain.

5. In cases of large uterine myoma giving rise to dangerous hemorrhage, and in which the electrical treatment has failed after a reasonable trial, and finally, in which extirpation of the appendages can be practiced with greater safety than hysterectomy.

6. In cases of puerperal peritonitis intra-peritoneal accumulations in which after opening the abdomen, the appendages are found diseased.

7. In cases of intra-peritoneal hæmatocele in which, on exploration, a bleeding point is found in a ruptured tube.



8. Exploratory incision should be advised in all cases in which any of the foregoing conditions are reasonably suspected, and in all cases "of disease of the abdomen or pelvis in which the health is destroyed or life threatened, or where the condition is not evidently due to" irremovable "malignant disease."

#### Amenorrhœa and its Treatment.

DR. WILLIAM B. DE WEES (*Medical and Surgical Reporter*):

The absence of the menstrual flow in a woman in whom it should naturally exist, constitutes the symptoms known as amenorrhœa. This term is, however, also applied to designate the absence of the catamenia for a considerable time after the regular monthly epoch, in a woman who previously menstruated regularly. Thus we have, technically speaking, two great varieties of amenorrhœa, as commonly reckoned: 1. *Emensio mensium*—when there is complete absence of anything like menstruation for a long period after the usual time for its appearance: 2. *suppressio mensium*—when the catamenia are obstructed in their regular periods of recurrence, in a woman in whom menstruation has been established.

Amenorrhœa is not a disease, but a symptom of a great many abnormal conditions of the system, the chief of which is chlorosis. This chlorotic state, as the fundamental cause of amenorrhœa, is of great frequency among women who live luxurious and indolent lives, and in this way disorder the nervous system and the circulation. Hence we encounter it for the most part among women in the higher and more wealthy classes of civilized society. Chlorosis is to be easily recognized by the whitish-green hue of the skin of the patient, the absence of a red color in the lips and mucous surfaces, the presence of lan-

guor, listlessness, depraved appetite and impaired digestion, constipation, palpitation, etc. There are also other symptoms and physical signs of serious systemic disturbances, among which may be mentioned a bellows sound, heard almost invariably over the heart. This murmur is continuous in the larger arteries, especially the carotids and subclavians, and is reinforced by each systole of the ventricle. This sound is very similar to the *bruit* coincident with enfeebled circulation, as after copious hemorrhage. The blood when drawn from a vein is thin, light colored and deficient in red corpuscles and in iron, while the clot is less proportioned than in health, etc.

The best method of treating amenorrhœa (*emensio-mensium*) is a very important matter. The true physician, having for his highest ambition "to aid nature," when called upon to treat amenorrhœa, must keep in view the cardinal points of his compass. He must keep in view first and foremost the three elements which must exist in a perfect state of health for the normal performance of the function of menstruation, viz.: 1. The ovaries, uterus and vagina must be normal in form and vigor. 2. The nervous system governing the relations between these organs must be perfectly healthy. 3. The blood must be in its natural healthful state both in quantity and quality.

It will thus be seen that amenorrhœa is the symptom of a disordered state of one or more of these three elements, regardless of what the varied and numerous causes producing this disordered state may be; and that to successfully treat such cases, it of necessity requires the removal of the causes producing the disordered state, and in the next place to aid nature in restoring lost function. The very first step, then, in the treat-

ment of these cases is to be satisfied by a thorough examination as to the condition of the organs involved. Being satisfied in this particular, the second and third elements are to be studied simultaneously, since whatever benefits and improves and invigorates one affects the other proportionately. Thus we may first place at the top of our programme good, wholesome, nourishing and easily digestible and assimilable food. Milk, fresh beef, bran bread, eggs and fruits must form the greatest portion of the dietary. Next in the order of importance are hygienic influences in the strictest sense of the term. The patient should pass as much time out of doors in the fresh air and sunshine as possible. The danger is in the house, and not out of it. Regular and systematic bathing followed by a thorough rubbing—sea-bathing is preferable; exercise of any and all descriptions on foot, on horseback, by rowing, calisthenics, etc., the association of cheerful and pleasant society, change of scenery and climate, overland route or sea voyage, etc., and last but not least, early retiring to bed in the evening (9 o'clock) and early rising in the morning (5 o'clock). These principles strictly carried into execution would in the large majority of cases probably be all that is necessary to aid nature in making full restoration.

But do what we may, it is impossible to secure harmonious action on the part of these patients as a class, in executing the instructions fully; hence we are forced to resort to medication as an adjuvant or auxiliary to the treatment. Just here is where a large portion of the practioners are forced to hesitate as to the better remedies or combination of medicines to be prescribed. In this connection I beg leave to say that I have treated no less than several hundred cases of amenor-

rhœa of the two varieties above defined, and while I founded the management of all my cases upon the foregoing general and fundamental principles of treatment, I have used in addition, in a large portion of my cases, the following medication, and am unable to recall a single case in my experience in which the treatment was not crowned with success.

I first prescribe: *℞. Ferri et quininæ citratis*,  $\frac{3}{4}$  j; *liquor potassii arsenitis*, f 3 iij; *atropinæ*, *strychninæ*,  $\frac{1}{2}$  gr. ss; *elixir auranti* q. s. ad f  $\frac{3}{4}$  viij. *M. Sig.*—Teaspoonful in water, before meals, three times daily. The ingredients or dose to be increased according to the tolerance of the patient.

This is continued in cases of *emensio mensium*, until there is manifested the peculiar menstrual malaise, or some slight show, when I discontinue it and prescribe: *℞. Potassii permanganat.* gr. x. *Ft. pil. No. x*, compressed or in capsule. *Sig.*—One pill followed by one-half glassful of water before meals, three times daily.

Also: *℞. Manganis bin-oxidi*, gr. x. *Ft. pil. No. x*, compressed or in capsules. *Sig.*—One pill after each meal, three times daily.

By the second or at most the third day after taking these, the flow usually becomes fully established. If the manganese does not fully effect this at the first attempt, we have, however, a stated period from which calculation can safely be made for the next period. The first prescription is relied on during the interval, and the pills commenced about three days before the expected time.

In cases of *supressio mensium*, I usually simply rely on the permanganate of potash and bin-oxide of manganese as just stated, and have found the combined use of these two salts all that can be desired for an emmenagogue. The first is a direct emmenagogue, stimu-

lating the uterine muscular fibre; and the latter is an indirect emmenagogue, improving the blood and toning up the nervous system. I have in a number of cases of strong, robust and large women, used these salts in two grain doses. In two patients, who were women of culture and refinement, wealth and influence, I was repeatedly assured by them that they were positive of no conception having taken place, but after three days' use of the drug in one case, and four days in the other, I was in both cases hurriedly summoned. I found them in a high state of fever,  $102^{\circ}$  and  $103^{\circ}$  respectively, with quick pulse, emesis, spasmodic and painful contractions of the uterus, diarrhea with some tenesmus, frequent micturition with attendant strangury, a flushed and hot surface of the entire body—indeed the skin in the face assuming an erysipelatous blush. The conjunctiva was congested, the pupils somewhat dilated. I gave a hypodermic injection of morphia to allay the irritation, which it gradually accomplished, and the alarming symptoms subsided, with the exception of the uterine contractions; these continued, but with comparatively little pain until the following night, and then finally ceased after bringing away a two months' embryo in the one case, and a three months' embryo in the other case. The drugs had been administered three days in the first and four days in the second case, in doses of two grains each. The period of gestation was afterward fully acknowledged by each mother respectively, who also confessed that they had designedly concealed their pregnancy with the purpose of obtaining a miscarriage. This result must be attributable to one of two things: Either it was due to an untoward effect or physiological of these drugs. Idiosyncrasy is out of the question, since both these women

had been treated before with perman-ganate of potassium and other drugs separately, by several physicians with no effect whatever. Or, on the other hand, there must be an action resulting from the combined administration of these two drugs, which produces a peculiar or more powerful effect, than either of them does when administered alone. For in these two cases they proved true ebolics, for I have never witnessed such a peculiar and powerful oxytotic action from ergot or any drug, and it persisted even after morphine had been administered.

### DISEASES OF CHILDREN.

#### Cerebral Symptoms of Pneumonia in Children.

DR. L. EMMETT HOLT read a paper before the Medical Society of the County of New York, in which he drew the following conclusions:

1. Cerebral symptoms in the pneumonia of children were very common.
2. Convulsions belonged almost without exception to infancy, being rarely met with after the age of 2 years. Occurring at the onset, they belonged essentially to lobar pneumonia; they did not indicate a bad prognosis, nor even in most cases a severe attack. When late convulsions came on, death within twenty-four hours might confidently be predicted.
3. Delirium came oftenest between the ages of 5 and 8, usually in conjunction with extensive disease and high temperature. These cases, although severe, with but few exceptions ended in recovery.
4. There was no such intimate association between cerebral symptoms and apex disease as had been frequently stated. Such symptoms occurred in only about one-fifth of the apex cases.
5. Nervous symptoms occurred much more frequently when the disease was extensive and the temperature very high.

He emphasized two points in treatment: First, that in the hyperpyrexia of pneumonia the cold pack was a safe and the most efficient means of reducing the temperature. Second, the use of antipyrin to allay restlessness, quiet delirium and cough, and promote sleep. Doses of 2 or 3 grs. were sufficient in an infant of 6 to 9 months. It might be repeated every 6 or 8 hours.

Dr. Andrew H. Smith thought, with regard to the immediate cause of the cerebral symptoms in pneumonia, that the cases might be divided into three classes: 1. Those in which the cerebral symptoms were brought about by the direct influence of the pneumonic poison. 2. Those in which they resulted from high temperature. 3. Those in which they resulted from exhaustion. He regarded lobar pneumonia as an infectious disease, and as likely to be ushered in by cerebral symptoms, like other infectious diseases. The convulsion in children corresponded to the chill in adults. There might be apparently broncho-pneumonia, yet associated with it might be isolated spots of the croupous variety. Convulsions were in some instances associated with exhaustion. He was inclined to ascribe delirium in most cases to high temperature. Then there was a group of cerebral symptoms more or less of a typhoid character which occurred in the later stage, and were the result of exhaustion. He thought kidney complications might cause cerebral symptoms in some cases. He agreed with Dr. Holt regarding the beneficial effects of small doses of antipyrin in subduing restlessness and insomnia.—*N. Y. Medical Journal*.

#### Convulsions in Children.

SIMON, in the *Gazette Médicale*, recommends the following as an injection

in cases of convulsions in children:  $\mathcal{R}$ . Chloral hydrat., gr. xv.; tinct. mosch., gtt. xx; aquæ, f 3 xij-xv. M. Sig.—Give in two injections by the rectum, avoiding violence.

#### Fermentative Processes in Childhood.

At a recent meeting of the Berlin Medical Society (*Medical Press and Circular*), Herr A. BAGINSKY gave an address on the above subject. His present investigations, he said, were a continuation of those he had systematically carried out since the year 1875, and had for their object the elucidation of one of the most important groups of the diseases of childhood, in regard to their etiology, pathological changes, their clinical course and termination, with the view of discovering a surer method of therapeusis. He pointed out the parts taken by Bednar and Henoch in their investigations into the subject, and said that his microscopical studies had led him to the same results, viz., that the larger part of the diarrheas of childhood and infancy depended solely upon fermentation and decomposition processes of the contents of the stomach and intestines. He had, however, from the first, laid stress upon the anatomical lesion that had resulted from the long continuance of dyspeptic affections.

Uffelmann was the first to discover large quantities of bacteria in the normal fæces of infants, and Escherich had drawn attention to the constant presence of two forms of bacteria, the *B. lactis aerogenes* and the *B. coli*, and to the part they played in normal digestion. In his investigations he was able to confirm the constant presence of both forms, but his studies into their biological characteristics gave a different result from Escherich's. The bacterium *lactis* produced only minimal



quantities of lactic acid, the bulk of the acid formed was acetic acid and acetone. The acetic acid formation went on as well when oxygen was excluded as when atmospheric air was admitted. The constituents of the cell did not hinder the formation of acetic acid, from whence the conclusion might be securely drawn that, even with the absence of oxygen, this fermentation of sugar and milk took place in the intestinal tract. Moreover, the bacterium converted neutral lactic acid into salt butyric, but did not decompose casein, its albumen requirement was small. Acetic acid was formed by action on starch only in the presence of oxygen; the gases accompanying the formation were carbonic acid, methane and hydrogen. The action was therefore not one of lactic fermentation, but of methane fermentation of acetic acid.

These results were not only of scientific interest, but of general practical importance. As he inoculated gelatine with the fermenting mass it happened that in quite a series of cases the gelatine remained sterile; thus in the course of the experiments the bacteria died off. The suspicion was therefore not remote that the acetic acid formed from the bacteria was the cause of the death of the microbes. It happened, in fact, that on inoculating nutrient gelatine mixed with acetic acid with the bacterium *lactus* no growth took place. He had further, during the course of the previous year, isolated two forms of bacteria in the stools of children suffering from acid diarrhea, both possessed the property of liquefying gelatine. The one furnished a green coloring matter and liquefied gelatine very quickly, the other more slowly, but it was most always to be found in the diarrhetic stools of children. He had inoculated this latter along with the

bacterium *lactis* upon meat peptone gelatine to which lactic acid had been added, and found that it produced no liquefaction under such circumstances, *i. e.*, it did not germinate, whilst the bacterium *lactis* flourished well. The latter could, therefore, kill off a pathogenic bacterium prepared to grow on a good soil.

It followed from this that the antibacterial treatment of intestinal diseases had a serious fault; for the object should not always be to get the intestines free from bacteria, it was under certain circumstances a distinct advantage to have bacteria which might act as a protection against a pathogenic bacterium. But the principal point was not solely the bacteriological condition, nor the fermentative processes... In the intestinal canals of children we had not alone to do with a retort and chemical processes, but with an extraordinarily lively organ subject to re-actions, and in close relation with the secretions of the pancreas, liver, and intestinal glands, with an exceedingly active lymphatic apparatus, richly endowed as to its vascular network, a strongly developed muscular structure, and an exceedingly complex nervous apparatus. In the course of dyspeptic affections serious lesions took place in the intestinal tract; if at the commencement of such affections decomposition processes alone were pronounced, yet later, anatomical lesions of the intestinal walls were in all dyspeptic diseases the ruling and integral factors with which we had unconditionally to reckon.

On the basis of the foregoing facts, the affections could be explained in the following manner. When an active fermentation of sugar took place, and acetic acid was formed, the activity of the secretion of the pancreas might be quickly put a stop to by its means, as it

only acted in an alkaline medium. The peptonization of the albumen introduced was delayed, the emulsification of the fat was restricted, and the amylolytic action brought to an end. The abundantly formed acetic acid set up increased peristaltic action, and in this way caused a rapid downward movement of the unthinned ingesta. Continued disturbances of this kind gradually lead to catarrhal changes in the mucosa, and as a result of this to a change in the resorptive capacity of the intestinal mucous membrane and in its further course to return of the disturbance in the intestinal juices, exudation with casting off of epithelium and free discharge of lymphatic cells. Free acetic acid fermentation contributed then to the destruction of just the bacterium that was able to keep the intestinal canal free from pathological bacteria, and so when the acetic acid thus formed was neutralized, the pathogenic germs that entered with the food were able to find a suitable place for settling down and growth on the softened catarrhal mucous membrane. Regarding the therapeutical side of the question, one must not lose sight of such facts as had been learned empirically. It was known that calomel in small doses, would stop the commencing dyspeptic diarrheas of children. He had experimented with this remedy, as with others, as to its relation to the *bacterium lactis*, and found that with benzoic acid the bacterium did not germinate, with boracic acid but little, well with naphthalin, with resorcin but little, and with calomel scarcely at all. This observation showed that the acetic acid fermentation could be interrupted by calomel. In a case of diarrhetic disease of the intestinal tract, one would not at once seize upon the first good anti-fermentation drug, but would first of all, find out what kind of

fermentation it was, and make use of the anti-bacterial remedy best in accord with the special indications of the case. From the acidity, alkalinity, or color of the fæces, no conclusion could be drawn as to the particular fermentation present, but it might from the character of the urine, form the quantitative determination of the ether sulphates and excretion of indoxyl.

The anti-bacterial treatment of intestinal diseases was, therefore, very limited, and it was of more importance to determine the seat of the disease and the nature of the pathological changes. When the decision had been made as to whether the stomach or the colon was affected, whether the affection was purely catarrhal, or the follicles were implicated, whether the muscular structures or nerve apparatus was changed, more could be done by the old tried means and methods than by efforts directed to the fermentative process. Observation, hitherto, did not justify pushing the anti-bacterial method of treatment to the front in the extreme way in which it was being done at present.

#### How to Give Arsenic to Children.

DR. A. JACOBI, in his excellent papers on "The Therapeutics of Infancy and Childhood," in the *Archives of Pediatrics*, gives the following directions for administering arsenic to young patients: The doses need not be large, but may be increased slowly, one-hundredth of a grain of arsenious acid, or one drop, or one and-a-half of Fowler's solution, three times a day, after meals, the latter amply diluted, are well borne for weeks, even months, without interruption, by a child of four or five years. In malaria the remedy may be given with quinia (and iron), in other forms with strychnia (and iron); in phthisis, with digitalis. The gradual increase of the

doses of arsenic may be effected in the following manner : A dram of Fowler's solution is diluted with sixty drams of water ; three doses of this mixture are given daily. If the initial dose be one drop, give a teaspoonful ; the next dose is a teaspoonful plus one drop, third dose a teaspoonful plus two drops, and so on, until the sixty-first dose consists of a teaspoonful and sixty drops. Thus the original dose is gently and slowly doubled in twenty days. Children bear arsenic better than adults, and very much better than senile patients. Still, even they must not take it when they are affected with gastric disorders, nor continue it when in the course of treatment conjunctivitis, œdema of the eyelids and face, or diarrhea make their appearance.

#### For Infantile Urticaria.

At bedtime use the following pomade: Chloral hydrat., camphoræ pulv., acaciæ pulv., āā dram j ; M. Triturate until liquefied and then add one ounce of cerate.

This relieves the pruritus, permits the infant to sleep, and puts a stop to scratching. In the morning anoint with : Acid carbol., gr. vij ss ; amyli glycerol, ounce j. M. The child must be clad next the skin in linen.

#### Summer Drink for School-Children.

DR. DUCHESNE, at a recent meeting of the Society of Practical Medicine of Paris, proposed the following formula for a summer drink for school-children. It is a slight modification of a formula of his used last summer with success in French schools. The object of the quassine is to impart a slight bitterness, to quench the thirst better, and to prevent children from drinking more than is healthy for them : Glycyrrhizin, gr. xvi ; powdered sugar, gr. xvi ; bicarbo-

nate of sodium, gr. xii ; crystallized quassine, gr. 1-200 ; oil of anise, gtt.  $\frac{3}{4}$ . M. For one powder. This quantity is to be dissolved in one quart of water when wanted for use. The beverage costs here about half a cent a quart. It would not probably cost much more in America. The idea of giving a slightly bitter taste is not a bad one. Should there be any difficulty in procuring the quassine either gentian or any of the native bitter principles might be substituted.—*Therapeutic Gazette.*

#### Whooping Cough.

DURING the catarrhal stages of whooping cough, remedies are used that have been found useful in ordinary bronchial catarrh, as : R. Syrup scillæ comp., f  $\frac{3}{4}$  j ; tinct. aconiti rad., ℥xvj ; tinct. opii deodorat., ℥viij ; syrup, tolu, f 3 vij ; aquæ lauro-cerasi, f  $\frac{3}{4}$  j. M. Sig.—A teaspoonful every 2, 3 or 4 hours.—BARTHOLOW.

#### OBSTETRICS.

##### Causes of Puerperal Infectious Diseases.

AFTER the doctrine of the infectious nature of puerperal fever had been generally accepted, efforts were of course made to discover the ultimate cause. Especially did the youthful science of bacteriology give great impetus to such investigations. Though the results were fruitful, in so far as finding germs were concerned, yet they seemed to do little more than confirm what clinical experience had taught, namely, the disease was not always due to the same cause. And just as erysipelas, sepsis, diphtheria and some other usually surgical diseases were looked on as the foci of infection, so, in later researches, the streptococcus pyogenes or that of erysipelas or diphtheria was found in the lesions of those who succumbed to childbed fever.

But, while the diseases named were and are clearly distinguishable, their causes are by no means so. Micro-organisms of the genus streptococcus are found as causes in erysipelas, phlegmon and some septic diseases, and as an accidental occurrence in diphtheria, in five conditions, which have many striking resemblances to each other. In appearance and mode of growth, they vary so little that the points of difference are believed by many to be caused by variations in the nutriment. Inoculations show some, though slight, difference of action. The thought was, therefore, very near to consider them as identical and assume that the resulting form of disease owed its type to some peculiarity, variable or constant, of the individual. Or it was argued, that the species underwent "variations," a view advocated with enthusiasm by bacteriologists with evolution theories in their minds.

Vidal has reported to the Académie de Médecine de Paris the results of his studies of the "forme septicémique pure" in puerperal fever, or typhoid type without suppuration. In all of his cases he found the streptococcus pyogenes, and from this and the result of his culture and inoculation experiments, he comes to the conclusion that it is impossible, in the present state of our knowledge, to distinguish between the various forms of streptococci, and that one and the same form can set up any of the various forms of puerperal infection. In all of these conclusions he is confirmed by Doyen and by Arloing.

This is strong evidence, though it will require a much larger consensus of public opinion to settle definitely the questions as to the various kinds of streptococci, and affections caused by them.

It is highly probable that many cases of puerperal fever, especially of the septicæmic type, are cases of mixed in-

fection by putrefactive bacteria, and that to these are due the symptoms of intoxication by ptomaines, which distinguish some cases.

Practically, the unity or variety of the coccus is of no importance. Anti-bacterial remedies are no more potent against one form than another, and safety is only assured when all possible sources of infection are kept far away from the favorable soil offered by the *post-partum* genitals.—*Philadelphia Medical News*.

#### Case of Sextuple Pregnancy.

AN extraordinary case of multiple pregnancy recently occurred at Castagnola, near Lugano, in Switzerland. A woman, 36 years old, wife of the local *Sindaco*, was delivered on May 4, of six children—four boys and two girls—at a birth. They were born alive, though prematurely, but they all died in a few seconds. Their united weight was only three pounds thirteen ounces, and the length of their bodies, which were perfectly well formed, varied from  $8\frac{3}{4}$  to  $10\frac{1}{4}$  inches. The case, which is said to beat all previous authentic records of human fecundity, is vouched for by Dr. Francesco Vassalli, of Lugano, who attended professionally on the occasion, assisted by Drs. Bianchi, Reali, and Solari, of the same place. Dr. Vassalli has reported the case in detail in the *Gazzetta Medica Italiana-Lombardia*, of June 2, and an abstract of his account may be interesting. It has been stated that the woman had previously borne seven children, in two batches of four and three respectively, but this is inaccurate. She was married only two years ago to a widower, 41 years old, who had ten children by his first wife. There were no twins among these, but it appears that he has five cousins—brothers—each of whom is the father of twins. A sister of the patient has also borne twins on



one occasion. The patient herself, in the first year of her marriage, had a boy who is now fifteen months old and in perfect health; she suckled him for eleven months, when she became aware that she was again pregnant. The catamenia had reappeared in the seventh month of her nursing, and the last period began on December 4 and lasted six or seven days; conception must therefore have taken place in the early part of January. The patient suffered severely almost from the first from weakness of the legs and vomiting, and in the fourth month the abdomen was as large as it usually is at full term. On the morning of May 4 (being about the 115th day of pregnancy), whilst doing some light outdoor work, she felt a sudden desire to empty her bowels, and, on squatting down for the purpose, there was a gush of hot liquid from the vagina which she recognized as amniotic fluid. She immediately went home, walking with much difficulty, on account of something which she felt protruding from the vulva. A neighbor was called in, who found a tiny fetus hanging by the foot, which was speedily delivered. All this occurred within a few minutes. Dr. Vassalli was then summoned, and found the os only partially dilated, whilst an unruptured sac could be felt through it. There being no urgent symptoms, the patient was kept quiet, and, after passing a fairly good night, she got up the next morning to attend to her household duties, feeling quite well. Toward midday, pains came on with increasing violence, and she lost a good deal of blood. Seeing that abortion was inevitable, Dr. Vassalli thought it advisable to hasten delivery. He therefore punctured the membranes and extracted a small fetus by the foot. After tying the cord, he followed up the placental end with his

right hand till he came to another sac of fluid; this he also punctured, and delivered a third fetus. Two more were extracted in the same way, the whole procedure occupying two hours. Fresh hemorrhage now occurred, and the uterus did not contract. Dr. Vassalli therefore tied all the cords together and made gentle traction, at the same time applying pressure to the womb. This failing, he introduced his hand into the uterus and tried to bring away the placenta, which, however, he only succeeded in tearing, with the result of making the bleeding more alarming. Having no hæmostatics at hand, he sent for assistance, keeping his hand in the uterus meanwhile as a plug. It was four hours before help arrived; the after-birth was then got away with some difficulty, a sixth fetus, enveloped in its own membranes, being found attached to it. The patient bore the trying ordeal very well, and made a good recovery. The heads of the fetuses were rather large relatively to the bodies, and the eyes were covered with the pupillary membrane. The genital organs were completely differentiated. There was only one placenta. The specimen has been placed in the museum of the R. Scuola Ostetrica, at Milan. Dr. Vassalli calls attention to the curious fact that Castagnola is rather remarkable for multiple births. From the official registers, it appears that in a population of 585, from January 1, 1876, to May 10, 1888—that is, 13 years and 4 months—there was a total of 247 births. Of these 228 were single and 19 multiple, the latter consisting of 5 cases of twins, 1 of triplets, and the present one of sextuplets. The proportion of twin births, therefore, was 1 in 45, instead of Schröder's estimate of 1 in 89; and of triplets, 1 in 228, instead of 1 in 7,910.—*British Medical Journal*.

## DISEASES OF WOMEN.

## Operative Treatment of Cervical Stenosis.

DR. MADDEN (*British Med. Journal*):

As the method which I employ in such cases differs in some respects from that generally adopted, I may perhaps refer to the details of a plan of treatment which within the past session alone has been employed in eighty-two of my hospital cases of stenosis. The total number of cases on which I have operated during the past ten years now exceed five hundred instances in cases of cervical stenosis productive of obstructive dysmenorrhœa or sterility.

In such cases the operation should, if possible, be undertaken a few days after the catamenial period, and should be preceded by daily hot water syringing for some time previously. For its satisfactory performance the patient should be fully etherized, and placed in ordinary semi-prone position on a suitable gynæcological table. Then the cervix being exposed by a duck-bill speculum, the anterior lip is drawn down by a strong vulsellum as near to the vulva as possible. The sound should now be used, or, if this cannot be introduced at first, a very small flexible probe may be passed, and followed by a larger one, until the ordinary uterine sound can be introduced. This being removed, I then pass in, up to the fundus, my uterine director, which is a long probe-pointed instrument, with ball and socket adjustment in handle, and rather less bulky than the common sound; and along its groove the button of the triangular guarded, blunt edged knife if forced, with the cutting surface directed backwards into the uterine cavity. It is then rotated, and withdrawn in the opposite direction. The edge of this instrument is thick and blunted, so as to crush apart or tear, rather than sharply divide, the

parts through which it is forced, and thus to diminish the risk of hemorrhage at the time, and to prevent the subsequent reunion of the separated surfaces.

These instruments have now been used with satisfactory results in upwards of a hundred cases in my hospital and private practice during the past session. But for twenty years previously I have employed, and in many cases still use for this purpose, Simpson's original metrotome, which I regard as a far better instrument than any of the more recent metrotomes, and in every respect superior to Sims's or Emmet's, or any other intra-uterine knife.

Whether the metrotome or my knife be used, I think matters little, at least when compared with the importance of maintaining the permanent permeability of the passage by whatever means this has been restored. This is the best secured by the use of a dilator. Immediately after the completion of the incisions I employ one, not merely with the view of thoroughly expanding the canal and its orifices in the most effectual manner possible, but also for the purpose of tearing the divided tissues and vessels, and thus arresting any excessive hemorrhage. The extent to which this dilatation may be carried must be largely determined by the special circumstances of each case. As a rule, in ordinary cases I pass the instrument well into the uterine cavity, and then, by means of a screw adjustment, separating the points to their full extent (that is, one inch and a quarter, and then not reducible by any external pressure to less than three-quarters of an inch), I withdraw the expanded blade forcibly through the canal, so as to expand the canal in the natural direction from within downwards and outwards, and not, as most other dilators, which act in the opposite direction; reintro-

ducing it, and repeating the same manœuvre in opposite directions, until the passage is so expanded that I can readily pass my finger into the uterine cavity, which is then thoroughly washed out with a hot carbolized injection. In the next place, I pack the cervical canal with a long tampon of compressed absorbent cotton, saturated in dilute glycerine of carbolic acid, and fill the underlying vagina with a large glycerine plug. The latter is removed in twenty-four hours, and the former in sixty hours, if not sooner expelled, being then replaced with a large sized, soft rubber stem, also previously well carbolized, or else by Dr. Duke's ingenious ball and socket intra-uterine stem, which causes no irritation and requires no additional support, and which I direct to be worn, if possible, until the next monthly period passes over. For a fortnight or ten days after operation the patient should be kept in bed, and the uterine cavity daily washed out with hot water, plain or medicated. Before allowing the patient to leave her bed I invariably secure the uterus *in situ*, and lift its weight off the ligaments by a properly adjusted Hodge pessary, which to a considerable extent obviates the occurrence of the possible after-troubles that might otherwise be consequent on this operation. Moreover, I desire the patient to remain in bed during the next menstrual period, which is generally attended with some pain and increased discharge. She should then wear a soft rubber stem until the approach of the subsequent period, after which she may return to marital intercourse.

#### Dysmenorrhœa.

AMAND ROUTH, M. D., in *Provincial Medical Journal*: The local causes of this disorder are grouped under the following heads: 1. Spasmodic, which

may, however, be quite independent of any local disease, and is in some cases a neurosis. 2. Obstructive dysmenorrhœa, either due to organic stenosis of any part of the genital canal or to displacements, to fibroids or altered uterine contents. 3. Inflammatory dysmenorrhœa, caused by inflammation of the uterus, ovaries, tubes or peri-uterine tissues. 4. Congestive dysmenorrhœa, either primary or secondary.

The constitutional causes are shortly mentioned, as anæmia, chlorosis, diabetes, phthisis. The specific fevers, especially typhoid and scarlatina, are prone to produce a cirrhotic condition of the ovaries, while rheumatism affects the fibrous tissue so abundant in the ovary. In the treatment of dysmenorrhœa, stress is laid upon the evil effects produced by opium, if administered too frequently or in the less severe forms. The use of chloral and alcohol may lead to their abuse unless great care be exercised. For spasmodic dysmenorrhœa, and for dysmenorrhœa due to fibroids, nitroglycerine and amyl nitrite are advocated. The bromides in ovarian, cannabis indica in place of opiates in cases of obstructive dysmenorrhœa; guaicum or salicylate of soda in cases of rheumatic origin and antipyrin in neuralgia cases, are amongst the remedies recommended for constitutional treatment. With regard to local treatment, the author raises a protest against the division of the cervix or "hysterectomy," an operation which is neither efficacious nor safe. In the treatment of spasmodic dysmenorrhœa, the passage of metal bougies, up to No. 12, will generally be found sufficient, and involves very little risk to the patient. In obstructive dysmenorrhœa, similar treatment, carried further and with greater precautions, will generally effect the desired cure. Intra-uterine, stem

pessaries are occasionally necessary, but must be used with great caution and with strict antiseptic measures. They should never be employed when any inflammatory processes in the pelvis, either present or recent, are known to exist. In congestive dysmenorrhœa, rest in bed with astringent lotions and hot douches will generally be sufficient; but if the congestion is caused or increased by prolapsus, vaginal pessaries must be used. Of these the author prefers the Hodge lever pessary, and avoids the ring pessary as much as possible.

#### Case of Hæmatoma of the Vulva in a Non-Pregnant Woman.

HIMMELFARB (*Centralblatt für Gynäkologie*) says that hæmatoma of the vulva usually occurs during pregnancy, and most frequently while birth is taking place. It has been occasionally observed as a result of direct violence. The author reports a case in which the labium was bitten immediately after coitus. The woman felt much pain, and noticed that a large swelling of the right labium majus developed quickly. She did not seek advice for a week. When examined the swelling was found to be the size of a large man's fist. It was oval in shape, and involved the whole length and thickness of the labium; it concealed completely the entrance to the vulva, and had to be drawn on one side to allow the urine to be passed. The swelling was very painful, bluish red in color, elastic and slightly fluctuating. There were no varicose veins either of the labia or the legs. Cold compresses were applied, and after a few days' rest the pain disappeared. The swelling was then opened, the clots cleared out, and the wound plugged with iodoform gauze. The dressings were changed daily at first, and then every second or third day.

The case is of interest on account of the size of the swelling. All authors state that hæmatomata occurring in a non-puerperal state attain only small dimensions. Zweifel says they are never larger than a hen's egg; and Hildebrandt that they may be as large as an apple, but that, owing to the hardness and resistance of the subcutaneous and sub-fascial tissue, they are more sharply defined and rounder than when occurring in the puerperal state. In the case related the swelling was oval, and at least as large as a man's fist. Usually they are caused by great violence, and only a few cases have been recorded in which a slight injury has been sufficient. The only reasons which could be found for the existence of hæmatomata in three such cases the author has collected, were respectively overstraining at the stool by an old woman, the lifting of heavy patients by a young nurse, and the clumsiness of a husband on the first night of his married life. Himmelfarb suggests that possibly the congestion of the parts after coitus may have had something to do with the size of the tumor.—*Medical Chronicle*.—*Medical and Surgical Reporter*.

#### Notes on the Diagnosis and Treatment of Uterine Cancer.

DR. T. A. ASHEY, in an article published in the *Maryland Medical Journal*, concludes the same as follows:

Owing to the fact that cases of uterine cancer often do not fall into the hands of the gynecologist until the disease has extended to the tissues surrounding the uterus, the operation of high amputation and of total extirpation are not possible of adoption in all cases. Reliance must, under such circumstances, be placed in palliative procedures. Whilst it may not be within the power of the medical attendant to



remove the disease, he may still be able to prolong life and to relieve distressing symptoms. Uterine cancer may progress slowly. It often destroys life by the distressing symptoms it evokes before it has done so by the destruction of vital tissues. Thus pain, hemorrhage and offensive discharges attend the progress of the disease, and it is these symptoms which often exhaust the life of the patient long before important tissues have become involved. It therefore, becomes important in the treatment of this disease to palliate or remove these symptoms. To consider them in detail, I shall arrange them under their respective heads.

*Pain.*—Pain is not a constant factor in uterine cancer. Frequently it is not experienced until the disease has extended to neighboring organs. On the other hand, in not a few cases it is an early and one of the most distressing symptoms met with, as well as one of the most difficult to combat. There seems no solace for such cases except in anodynes. Opium plays the most conspicuous part in the treatment of this condition, and whilst it enslaves the patient it is questionable whether its use should be interdicted. In a few instances I have relieved pain by removing large masses of cancerous tissue, thereby removing mechanical pressure, the chief factor in provoking this symptom. The curette then becomes of service in this as in the other symptoms, to which reference will be made.

*Hemorrhage.*—Hemorrhage frequently does not make its appearance until cancer has developed to a considerable extent. It may, however, be the first symptom which calls attention to this disease. It is not always regarded by the patient or by the attending physician as an indication of cancerous trouble. The failure to recognize the relation

which hemorrhage bears to this disease has led to serious oversight and neglect. Continuous or copious uterine hemorrhage should never be permitted to go on without an examination to ascertain its cause. In this way only can an accurate diagnosis be reached.

This rule should apply to all women, but especially to those women who have a return of uterine hemorrhage after the menopause. The origin of hemorrhage in uterine cancer is an erosion of the tissues, or a papillomatous growth sprouting out from the seat of the morbid process. Epitheliomas take on a rapid exfoliation of new tissue, and fill the vagina at times with masses resembling in every respect, save color, a cauliflower growth. I have seen a papilloma half the size of an infant's head fill the entire vagina within a comparatively short time after a former removal. The outgrowth of new tissue is very marked and rapid in some cases, and gives rise to copious hemorrhage, offensive discharges and severe pain. The removal of this tissue has a most beneficial effect upon the patient. It arrests, for the time being, hemorrhage and pain, and changes the character of the discharge from an offensive to a simple muco-purulent secretion. The sharp curette is the most effectual way to remove this newly-formed tissue. After curetting, the solid stick of nitrate of silver carried into the tissues will remove all that the curette escapes. It may become necessary to tampon the vagina with iron-cotton for a few days. After removal the cancerous mass will granulate nicely for some weeks thereafter, and the patient will thus gain a respite from hemorrhage, pain and foul discharges. Her general bodily condition will improve, and all will go on well until the return of the papillomatous neoplasms. It will become neces-

sary to attack the new growth as soon as it puts in its appearance. If this is done the condition of the patient can be kept good for many months, or possibly years, until the cancerous infiltration involves the rectum or bladder, or other vital organs. An extensive experience with uterine cancer has induced me to regard the palliative treatment, above indicated, as of great value and comfort to these patients. Life can be prolonged and general comfort maintained by repeated attacks upon the progress of the disease, thus as it were "knocking it on the head" as fast as it shows itself in a threatening attitude. The time will arrive when nothing can be done; but this is true of all organic troubles. We may help these patients vastly by a cautious use of the curette and escharotics.

**Foul Discharges.**—The necrosis of uterine tissue and the retention of blood and secretions make a most offensive odor in these cases of uterine cancer. The patient is often a nuisance to herself as well as to others. To combat this symptom nothing is more effectual than the curette and caustics. Keep the cancerous mass clean and the offensive discharges will cease. So long as necrotic tissues are removed and decomposed blood and vaginal discharges are not allowed to accumulate within the uterus or vagina, the foul odor will not be present. I have seen these cases kept free from unpleasant odors up to the very time of death by the method suggested. In the intermediate stages of uterine cancer—that is, during the time the disease is beyond eradication, but susceptible of palliation—these patients may be able to go about and enjoy social and devotional exercises in fair health and comfort. This would not be the case were not local treatment employed in the manner previously in-

dicated. The highest mission of science is to prolong life and render it comfortable. All organic diseases lead to a fatal termination, but if we can arrest degenerative processes by medicines or by surgery, the result is worthy of accomplishment. This hopeless malady to which I have called attention, appeals loudly to the sympathy and skill of our profession. Let no one despair of being able to render a service to such cases.

#### Hydrastis Canadensis in Uterine Hemorrhage.

DR. W. SENVOWSKI writes (*Gazeta Lwowska*), that he very successfully employs fluid extract of hydrastis canadensis 15 or 20 drops, three or four times daily in various forms of metrorrhagia, especially in flooding connected with puerperal subinvolution of the womb (3 cases), hemorrhagic endometritis (2), climacteric hemorrhage, etc. In one of his climacteric cases, however, a combination of the hydrastis extract with that of ergot (15 grammes of the former with 1 of the latter, 15 drops of the mixture four times daily) gave better results than hydrastis alone could secure.—*St. Louis Medical and Surgical Journal*.

#### Obstinate Pelvic Cellulitic Mass.

FOR the removal of an obstinate pelvic cellulitic mass, the editor of the *Cinn. Lancet-Clinic* states that the following prescription proved unexpectedly efficacious: R. Extract belladonnæ, camphoræ pulv., āā ʒj; unguent hydrargyri, ʒ ss; lanolin, ʒ j. M. Sig.—Apply to the skin over the swelling, on Canton flannel.—*Coll. and Clin. Record*.

#### Ergot in Uterine Fibro-Myomata.

DR. G. V. HALE, of Wheatland, Texas, recommends (*Texas Cour. Record*) weak hypodermic injections of

ergot (he prefers Parke, Davis & Co.'s normal liquid ergot) in uterine fibromyomata, thirty minims being applied at a dose, directly over the uterus, in the abdominal wall. Normal liquid ergot does not require dilution with distilled water, or filtering before using, as solution of ergotine does.—*Ibid.*

#### Tamponing the Womb in Septic Endometritis.

AT a recent meeting of the Tver Medical Society, Dr. TZETZILIA 'M. TZYMKOVSKAIA, the woman physician to the Tver Gubernsky Zemsky Hospital, read (*Meditzinskoïe Obozreniē*) a very instructive paper on two severe cases of puerperal septic endometritis. They refer to a peasant primipara, 18 years old, admitted on the twelfth day after normal labor; and to a servant, 28 years old, brought to the hospital on the fifth day after abortion, and ten weeks after her last menstruation. In the former, adherent placenta and fetal membranes, and in the latter patient considerable remnants of the fetus, were found in the uterine cavity, in a highly decomposed state. In both of them there were present fever (up to 104° F.), extreme prostration, abdominal distension and tenderness, loss of appetite, and an intolerable offensive odor from their genitals, etc. The treatment consisted in washing out the uterine cavity, with a corrosive sublimate solution (1:4000) scraping out the whole inner surface of the womb with a sharp spoon, and in tamponing the uterus with a 20 per cent. iodoform gauze, in strips measuring 3¼ and 2¼ yards in length and 2½ inches in breadth, thickly sprinkled over with iodoform powder. The tampon was inserted by means of a uterine sound, after the cervix was dragged downward with a volsellum forceps. It was left *in*

*situ* for three days in both of the cases. The effects were as rapid as striking. The women's temperatures fell down to 99.3° F. and 99.4° F. respectively on the first evening. The offensive odor disappeared immediately. The patients' subjective feeling, appetite, and general state commenced to improve steadily from the very beginning; and the women were discharged perfectly well and sound about seven and five days after their admission. Dr. Tzymkovskaia observes that the antiseptic tamponade of the womb was first practiced in Professor Gusserow's clinic (*vide the Centralblatt fuer Gynecologie*) as a hæmostatic measure in cases of puerperal atony of the womb. Her cases however, brilliantly prove that the tamponing possesses also an admirable disinfecting action. In fact, the tampon not only prevents any putrefaction, but also checks the process—and that even when the latter is in an advanced state. She draws attention, further, to the fact that the procedure is especially advantageous in country practice, since the patient, with her womb tamponed, can be safely left without irrigations or injections for two or three days.

#### DISEASES OF CHILDREN.

##### Treatment of Predisposition to Phthisis in Children who have had Pleurisy.

DR. W. B. WOOD, in discussing this subject, said that between the condition of no disease and the time of well developed phthisis lay somewhere that border land, predisposition—a condition which was not phthisis, but which might be recognized and successfully treated, and which, if unrecognized and untreated, would ultimately become phthisis. The first physical manifestation of predisposition to phthisis was diminished breathing power, deficiency

of respiratory function. Two great causes of deficient respiratory function in children were impeded nasal respiration and thickened and immobile pleura at the base of the lungs. Any treatment which would successfully overcome these conditions, constituting predisposition, would, in a vast majority of cases, effectually prevent the development of phthisis in children. The treatment would have to consist in securing free nasal respiration by treatment of the nose and by a system of lung gymnastics. The history of most cases of phthisis in children, when reliable, contained evidence of earlier deficiency of nasal respiration or deficiency of lung expansive power caused by pleuritic disease.

Dr. E. T. Bruen, of Philadelphia, was asked to open the general discussion. He said that from time immemorial the view had been entertained that pleuritic disease had considerable bearing upon the development of phthisis. But during the last few years much study had been devoted to the question whether the conditions which caused the phthisis had not been the cause of the pleuritic process. In addition to the evidence already published, he cited two cases which had come under his observation during the past year, in one of which extensive pleuritic adhesions over the entire chest had been present, and, although the microscopic sections had demonstrated the characteristic anatomical changes denominated tubercular, there had been no lesion whatever in the lungs. The fact that patients with pleurisy often recovered did not go to prove that the process was not tubercular, for we often saw complete recovery from tubercular peritonitis, where we might suppose the conditions were less favorable. Sir Andrew Clark had expressed the belief

that these cases of pleurisy were simply inflammatory, but that had been at a time when less was known about the microbic origin of phthisis. It seemed to the speaker that the cases in which absorption of fluid from the pleural cavities did not take place were usually those in which it was sacculated, and he had come to look upon tapping as rather unsatisfactory, and resorted to it only in dyspnoea or other urgent conditions. It was in persons of tubercular or scrofulous diathesis or enfeebled constitution that special attention should be given to preventing the development of phthisis following pleurisy. He could do no better than repeat Sir Andrew Clark's words on this subject: "We should not try to develop the chest too much, and at the same time fail to fortify the whole body. Physicians often devote too much attention to developing respiratory capacity to the neglect of the general condition."

Dr. F. C. Shattuck, of Boston, said that about three years ago he had written a note to Strümpell's "Text Book of Medicine" to the effect that the experience of physicians in America was not like that of the Germans, who, according to Strümpell, found pleurisy due to cold only in very rare instances. He had given as his reason for the statement that here so many patients with pleurisy entirely recovered. Since then his views had undergone a marked change. Facts seemed to be pointing to the stand taken by some Continental writers that pleurisy was always due to tuberculosis. We were in the habit of associating in our minds tuberculosis and an unfavorable or fatal prognosis, because formerly only tuberculosis pulmonalis had been recognized, and then only when going on to a fatal issue. But we had learned that local tuberculosis frequently existed and was recov-



ered from, whether in the pleura or elsewhere. It was true that the tubercle bacillus had not always been found in the pleuritic effusion or on the surfaces of the membranes, but that was only negative evidence, and could not be regarded as of weight when it was remembered that in the most favorable cases for finding the bacilli the search was tedious. Nor was our inability to account for the arrival of the germs at the pleural cavities an argument of value against the microbic origin of the disease. The best possible form of pulmonary gymnastics was mountain climbing.

Dr. E. G. Janeway thought that the study of the relationship between sero-fibrinous pleurisy and tuberculosis was a difficult one. If within a few months, or even a year, after sero-fibrinous pleurisy he were to find evidence of tuberculosis, he would be very much inclined to believe with Dr. Shattuck that the tuberculosis preceded in the pleura or was already present in the lung, although undemonstrable, and was directly or indirectly the source of the pleurisy, rather than that the sero-fibrinous pleurisy had produced the pulmonary tuberculosis. Autopsies went to confirm him in this belief. One was struck at the frequency with which he found at autopsies tubercles in the pleura in cases that he had supposed from clinical observation to be those of simple pleurisy. He had seen cases of pleurisy in the rheumatic in which other forms of infection could be excluded. As to treatment, when the effusion failed to be absorbed, there was a method which had often proved successful after repeated paracentesis had failed. It consisted simply in limiting the amount of fluids taken to one-third or one-half the amount of urine passed, at the same time giving

iodide of potassium and salt in sufficient quantity to make the blood thirsty for fluid. In febrile cases the patient should be kept quiet. The speaker had lately seen three cases which had shown the difficulty of arriving at the facts regarding the presence or absence of the tubercle bacillus, to establish the diagnosis.—*N. Y. Medical Journal*.

#### Sudden Accessions of High Temperature in Children.

IN a letter to the *British Medical Journal*, Dr. JOSEPH SMITH writes: I was called in to see a male child, aged 16 months, at 10 A. M., and found my little patient with swollen gums, which I lanced. I prescribed calomel, gr. ij, as the bowels were constipated, and a little saline mixture. The temperature was 101.5°. There was a little cough; but on carefully examining the lungs the physical signs were almost *nil*. At 6 P. M. I was informed that the calomel had acted twice; but as the child looked worse I again examined its lungs, and found the physical signs in the same condition as on my first visit.

Upon taking the temperature, my thermometer recorded 110°. Thinking the thermometer was at fault, I compared it with the others, and found the record correct. Upon visiting the child again at 10 P. M., the thermometer registered 102°. In two days the child was comparatively well and the temperature normal.

To the same journal, Dr. Albert Kisch writes: On May 7, 1887, I received an urgent summons at 9 A. M. to see C. L., a dark, bright eyed, healthy looking girl, aged 12. She had not yet menstruated. I found her in bed, apparently well; pulse 72; temperature in mouth, 99°. The father explained to me that he made a practice of taking the temperature of his children with a

clinical thermometer on occasions of illness, and as the child had complained of headache and some general discomfort shortly after waking, he placed his thermometer in her mouth, and found that it registered at 8 A. M.  $105^{\circ}$ . At 8.40 A. M. she seemed more uncomfortable, and, being unable to keep the bulb of the thermometer in her mouth in consequence of a rigor, he placed it in the rectum, and found that it registered  $110$ . When I found, only twenty minutes later, that my thermometer only indicated  $99^{\circ}$  in the mouth, we concluded too hastily that my friend's thermometer must have been faulty; but while we were discussing this matter the child again felt uncomfortable; her pulse was then 144; she was pale, and said she felt more ill than ever previously. A slight shiver came on. I inserted the bulb of my thermometer into the rectum and found that it registered  $110^{\circ}$ . Five minutes later it still registered the same temperature, but ten minutes later it indicated  $105^{\circ}$ .

At 5 P. M. the temperature was found to be  $102.2^{\circ}$ , and at 9.30 P. M. it was  $99^{\circ}$  both in mouth and anus, and the pulse was 84. She complained of occasional violent pains in the head, but neither pulse nor temperature was affected by them. The tongue was clean, and, but for the pains in the head and occasional slight rigors, she was fairly comfortable throughout the day. A dose of Gregory's powder administered after my first visit acted at about 7 P. M. At 10 P. M. she fell into a sound sleep, which continued with slight intermission till the morning, when pulse and temperature were normal.

I may add that the bowels had been regular, and that the urine was normal in all respects, and that, but for the fluctuations of temperature, there were no physical symptoms.—*Analectic.*

#### The Treatment of Broncho-Pneumonia in Children by the Application of Ice.

DR. ANGEL MONEY urges, in the *Lancet*, the more general adaptation of the use of ice bags in the treatment of broncho-pneumonia. He writes that he has now treated in this way many cases of severe broncho-pneumonia in children and in infants with general success, no matter what might have been the cause of the disease. He has used it with success in cases of broncho-pneumonia, secondary to tracheotomy, and even with more favorable results when it occurs as a complication of influenza and measles. The smaller the child the more marked are its effects. In very small infants under one year of age the ice bag may be placed on the head, the hair having previously been thinned and shortened if necessary. The treatment to be successful must be carried out with a will and systematically. As a general rule, the rectal temperature affords the best guide to the application of cold, and those acquainted with broncho-pneumonia well know the highly marked remittent or almost inter-mittent character of these affections. Ice bags have the drawback that they often give rise to a little wetting of the child, but this has not, in the writer's experience, proved injurious to the patient. Leiter's tubes have been tried, and have some advantages, being especially valuable when an intelligent nurse is in attendance. The condensation of moisture caused by the cold is of course inevitable, but this wetting may be rendered harmless by covering the ice bag or Leiter's tubing with a layer of Hartmann's wood wool or the compressed moss sphagnum. In severe cases, where a rapid effect is required, two ice bags have been placed on the head, and one over the chief seat of consolidation in the lungs. With a little

management it is not difficult to keep these in place; certainly not when the neuro-muscular prostration is marked, as it almost always is in severe cases. The chief merits of this treatment consist in the maintenance of the strength, not only of the heart, but also of the respiratory centres and of the nervous and muscular systems. Although otitis media occasionally occurred, yet this has not been more frequent than in cases treated without cold. Albuminuria is not rendered worse by the cold, nor have any cases of hæmaturia been observed. The urine has, at some trouble, been specially collected and tested in small infants. The duration of the disease is, on the whole shortened. Convalescence is almost invariably rendered more rapid, doubtless because of the conservation of the child's energy.

It is superfluous to assert that ice does not merely act by stealing heat; its action is almost exclusively sedative. Physiologists would aver that it increased inhibition, and in that way made wrong right; because disease simply lowers resistance in the vital processes, and curative measures raise it. Ice influences different organs differently, and this is most noticeable in the various parts of the nervous system. Its action on the cortex of the brain is, perhaps most evident in the production of sleep, restless movements rapidly subsiding if the cold be efficiently applied; probably, therefore, the whole system of motor centres and sensory centres is soothed, because morbid sensations and morbid motions tend to cease. On the heart and circulation the influence is also decided, but this influence is probably exercised directly and indirectly; for not only does the cold directly quiet the heart and steady the circulation, but the calming of the nervous system also acts indirectly in

the same direction. The respiratory centres are similarly beneficially affected. The heat regulating apparatus manifests most clearly the same beneficent action, and the temperature chart shows a similar harmonious effect. It is curious to observe the almost immediate cooling of the whole surface of the body soon after the application of ice to any part, this cooling effect being perhaps best marked when the ice is applied to the head; the hands, previously red and hot, become cool and slightly blue. The change is decidedly favorable, notwithstanding the supervention of the signs of feeble circulation in the exposed parts of the skin. Vomiting and diarrhea, alone or in combination, may require treatment in the cases under consideration; that cold method does not increase diarrhea, and it certainly tends to stave off vomiting. The employment of cold does not obviate the necessity of using stimulants, either of the ordinary sort or such as act more especially on the heart and respiration. But cold renders them less necessary, and when they are required smaller doses are sufficient. There is, indeed, a saving of expenditure all round; the cost of the illness is lessened, and costs the child less expenditure of reserve strength.

#### Emetics and Cathartics for Children.

FORMULÆ :—Dr. H. PIERRON recommends the following emetics and cathartics for children :

*R.* Tartarized antimony, 0.01 cent. (.1543 gr.); powdered ipecac, 1 gram. (15.432 gr.); syrup of ipecac, 50 gram. (771.6 gr.). Teaspoonful every ten minutes for a child one year old, until desired effect is produced.

This ought only to be administered in the presence of the physician who should closely watch its action : *R.* Sulphate of copper, 0.05 to 0.20 cent.

(.77 to 3.08 grs.); simple syrup, 30 gram. (462.96 grs.); water, 100 gram. (1543.2 grs.). Tablespoonful every ten minutes.

Sulphate of copper is best emetic in tracheobronchitis, bronchitis, pneumonias, particularly those of a diphtheritic origin.

Hypodermatic injections of emetine and apomorphine should not be employed among children except in cases of the most urgent necessity: Emetine, 0.05 cent. (.7717 grs.); distilled water, 10 gram. (154.32 grs.). Two-tenths of a Pravaz syringe-ful every five minutes until desired effect is produced.

*Cathartics.*—℞. Castor oil, 5 gram.; decoction of roasted coffee, 50 gram.; sugar, q. s. For a child one year old; to be taken at breakfast time.

℞. Castor oil, 6 gram.; pulverized gum arabic, 2 gram.; vegetable lime water, 30 gram.; simple syrup, 2 gram.

The following is specially preferred by Dr. Pierron: ℞. Castor oil, 6 gram.; syrup of almonds, 30 gram. Shake in a bottle and give at one dose.

Purgative emulsions are frequently employed in France. ℞. Resin of scammony, 0.20 cent.; milk, 120 gram.; water of orange flowers, 4 gram.; sugar, 15 centigram.

The above is Bouchardat's formula; the following is Desblanc's: ℞. Resin of scammony, .20 centigram.; bicarbonate of soda; sugar, āā 0.60 centigram.; milk, 100 centigram. For an infant two years of age.—*Journal de Médecine de Paris.*—*Medical Register.*

#### Summer Diarrhea.

PROFESSOR A. S. GERHARD, of Philadelphia, recommends the following for summer diarrhea: ℞. Tinct. opii deodorat., gtt. vj.; tinct. catechu. f ̄ iss; syrup. rubi villosi; syrup. rhei aromat., āā f ̄ iiss; aquæ camphoræ, f ̄ j. M.

Sig.—A teaspoonful every hour or so for a child under one-year.—*Coll. and Clin. Record.*

#### Clinical and Therapeutical Observations Concerning Measles.

MONTEFUSCO (*Rev. Mens. des Mal. de l'Enfance*) made observations in the course of an epidemic of measles which prevailed in Naples during portions of 1887-'88.

During the period of invasion there was observed in a number of cases the almost complete absence of fever. Some children had simple *malaise* and non-febrile catarrh of the conjunctivæ and the nasal mucous membrane. Usually the fever coincided with the appearance of the eruption. An absence of fever in the early stage seemed to have no bearing on the subsequent course of the disease. Epistaxis was of frequent occurrence during the first stage, but it was never abundant and appeared to have no particular prognostic value.

Among the different varieties of eruption, one was observed which resembled, at first sight, that of hemorrhagic variola. This hemorrhagic form, especially in cachectic children, has also been observed by Vogel, Rayer, Willan, and Günzburg. In two cases a persistence of the eruption was observed after the fever had disappeared. The fever disappeared on the eighth day of the eruption; the eruption disappeared from one of the patients two days later, and also from the face and body of the other, while the eruption on the limbs remained unchanged. The temperature exceeded 39° C. (102.2° F.) during the period of invasion in only a few cases. Increase of temperature was usually announced by frequent and irregular chills, though in some cases the chill was single and violent.



The fever in all cases was continuous, ceasing on the seventh or eighth day, very often when the eruption appeared. The urine was diminished in quantity, the chlorides were diminished, and the sulphates and phosphates were sometimes increased. In rare instances a small quantity of albumin was found. The most frequent complications affected the respiratory apparatus. A dry and paroxysmal cough, without expectoration, usually began on the third or fourth day of the period of invasion, dry and sibilant râles being discoverable by auscultation. Symptoms of bronchial catarrh were sometimes apparent before and sometimes simultaneously with the invasion of the measles, full development taking place in the course of the period of invasion. In such cases there was more or less abundant expectoration of mucus with moist râles. During the period of eruption the bronchial catarrh was always more diffuse and the expectoration more abundant. The latter was sometimes sero-mucous, and sometimes there were nummular sputa which were suggestive of phthisis. When the fever and the eruption disappeared there was usually a diminution in the intensity of the bronchial catarrh and the cough became less painful, and the expectoration less abundant and of a serous character. Capillary bronchitis was not infrequently a complication, and often led to fatal results by suffocation or by slow asphyxia. Frequently there were attacks of laryngitis during the period of eruption, with periods of dyspnoea, as in croup. Convulsions were of frequent occurrence, especially during the period of invasion; they occurred less frequently during the period of eruption, and never during convalescence. It was not observed that they had any harmful influence on

the course and termination of the disease. Troubles in the digestive apparatus were common. During the period of invasion there was frequently vomiting of greenish mucus. In two cases there were vomiting, meteorism, and diarrhea during the period of eruption. Diarrhea was more frequent during the invasion than the eruption, but rarely was it sufficiently severe to be looked upon as a complication. Either erythematous or ulcero-membranous stomatitis was present in almost every case. In regard to treatment, it was believed that no particular intervention was necessary in those cases which ran the regular course. To treat the fever of such a condition by seeking to remove it is irrational; the fever is not the morbid process. This does not signify that high temperature should be disregarded when it reaches such an elevation as to produce granulo-fatty degeneration of the tissues, or when it diminishes the resisting power of the patient, and produces functional troubles of the heart and brain which may lead to paralysis.

Alimentation is the treatment for such conditions, and the author regards the suggestion of Semmola and Dujardin-Beaumetz to substitute glycerin for alcohol as a very good one. Children who were treated with glycerin by the author retained their strength, showed diminished temperature, and excreted less urea. Glycerin may be administered in amounts of nearly an ounce daily, combined with about eight ounces of water and half a dram of citric or tartaric acid.

The broncho-pulmonary complications of measles should be treated with a combination of infusion of ipecac, tincture of aconite, and syrup of *Bignonia catalpa*. Iodide of sodium diminished expectoration and respira-

tory frequency. If the cough was particularly rebellious the author obtained good results by giving the iodide of sodium in combination with the bromide of sodium.—*N. Y. Medical Journal*.

## OBSTETRICS.

### Arrest of Evolution versus Maternal Impressions.

DR. DIXON (*Weekly Medical Review*):

The writer is of the opinion that the evidence brought forward to support the theory, that "mental impressions upon the mother are conveyed to the fetus in utero through the medium of the blood, and are the cause of monstrosities, amputations, nævi, etc.," is far from conclusive. He believes that demonstrated pathological, physiological and embryological truth shows that these so-called maternal impressions, monstrosities, marks, etc., are the results of arrest of development or evolution, pressure by amniotic bands, pressure by the umbilical cord, adhesion of the placenta, or by some pathological condition of the fetus or its membranes, or by heredity.

The author gives a most interesting review of the evolution of the embryo, discussing the various points at issue, and draws the following inferences:

*a.* That during the embryonic existence certain parts may be hindered or arrested in their development, while the other organs not directly connected with them may continue their evolution and become fully developed.

*b.* That ectopia viscera of the abdomen, spina bifida, cleft palate, harelip, webbed fingers and toes, etc., are only evidence of arrested development of embryonic abdominal, spinal, and maxillary processes, or, in the case of

webbed extremities, the continuation of the embryonic hand or foot of the second month.

*c.* That any agency causing arrest of development of any portion of the fetus must necessarily operate prior to the evolution of the part.

*d.* That the cause of the arrested development may be local or general, as injuries to the mother's abdomen, diseases of the uterus or its membranes, hereditary transmission of deformity.

*e.* That excessive development of parts of the fetus may obtain, resulting in nævi, aneurisms by anastomosis, supernumerary fingers and toes, etc.

*f.* That intra-uterine amputations are the results of amniotic bands, placental adhesions, fracture, or from constriction by a loop of the umbilical cord.

*g.* That amniotic bands or placental adhesions result from inflammation of the uterus, its decidua, or inflammatory diseases of the fetus.

*h.* That the false membranes causing these amputations may be afterwards absorbed, as also the amputated extremity.

*i.* That so-called double monsters are the result of the development of a double cicatricula on the blastodermic membrane of a single ovum.

*j.* That twins with a common chorion also result from the development of a double cicatricula on the blastodermic membrane of a single ovum.

*k.* That in either case there is always unity of sex.

*l.* That the nearness of the primitive traces to each other determines whether the impregnation will result in separate twins or a double monster.

*m.* That in twins with single chorion or anastomosis of placental vessels, one fetus may become perfectly formed while the other becomes monstrous.

*n.* That the development in such

cases of the abnormality, depends on local anatomical causes, and is governed by definite laws.

*o.* That every known form of malformation in the human race has its analogue in the lower animals, birds, fishes and reptiles.

*p.* That arrest of development at any of the stages of embryonic life results, in part or in whole, in a permanent embryo of the stage at which the arrest took place.

From the consideration of all these facts, the subject is narrowed down to the following questions,—viz.:

Can the mother's mind produce the diseases of the uterus or its membranes which result in false bands or placental adhesions which cause amputations and other deformities?

Can such impressions cause the umbilical cord to encircle and amputate a limb, or cause the death of the fetus?

Can such impressions reach and act upon the newly impregnated ovum so as to cause the double cicatrícula to approach each other so closely as to result in union and double monsters?

Is it possible for maternal influence to destroy or deform one fetus in utero, while another enclosed in the same membranes is uninjured?

A large percentage of congenital deformities being shown to arise from local and other causes which can have no connection with maternal influence, is it probable that at another time exactly the same deformity is produced by maternal impressions?

Is it reasonable that an intra-uterine amputation will be caused in one case by an amniotic band, while in another it may be caused by maternal impressions?

When it is remembered that no nervous connection exists between the embryo and the mother, that there is no

distinct blood communication, that the mother's mind can have no influence in causing pathological conditions which have been shown to be the cause of the malformation, that during the first week of fetal life the ovum is surrounded by anatomical conditions precluding maternal influence, whereas it has been shown that the vast majority of malformations have their origin in that period of embryonic life in which the ovum is still homogeneous blastema; when all these facts are considered, can any one believe that the mother's mind can change the conformation of the fetus in utero?

#### The Involution of the Muscular Tissue of the Puerperal Uterus.

AN essay by Dr. M. SAENGER, a former assistant and pupil of Professor Wagner, of Leipzig, is given in the *Annals of Gynecology*. After reviewing the literature on the subject of involutions of the uterus, Dr. Saenger gives the results of his microscopical examinations of seventeen uteri, two of which were normal, unimpregnated organs of women who had borne children; two at the sixth and eighth month, respectively, of gestation, and twelve puerperal. The latter specimens were obtained at various times ranging from four hours to fifty-five days post-partum.

The following are the conclusions which he has drawn from his investigations:

1. The involution of the muscular tissue of the puerperal uterus is begun, as a result of the performance of an increased volume of work, in addition to great activity in the tissue changes during parturition.

2. Retraction and contraction of the entire uterus, after parturition, signifies retraction and contraction of individual muscular fibers; the expression of which

is to be found in the shortening and broadening of the muscle spindles, with the formation of transverse and longitudinal ridges upon them.

3. A further disturbance in the equilibrium of the tissue changes in the muscular tissue of the puerperal uterus is caused by the cessation of the rich blood supply which it enjoyed during pregnancy, that is, by a relative anemia. These three factors—increased oxidation, continuous retraction and contraction, and relative anemia—lead to retrograde metamorphosis of the protoplasm of the muscular fibers (finely granular cloudiness, hyaline degeneration, fatty degeneration) and by an absorption of the superfluous protoplasm, cause, as a consequence a gradual diminution and reduction of the muscle fibers to the normal.

4. The fat globules which are formed within the muscle spindles, and the other products of disintegration, do not enter as such into the circulation, but are oxidized in the place where they occur. There is no such thing as puerperal lipemia.

5. Probably not a single muscular fiber is destroyed by complete fatty degeneration. The regressive changes within the puerperal muscular fibers, which may be denominated paratrophic, have for their object only the true involution of the muscular fibers until they have attained their earlier size and form. The definition of atrophy, as a pathological process, does not correspond with the physiological nature of these processes.

6. Any muscular fibers which may be newly formed during pregnancy must undergo similar puerperal paratrophy and involution, in proportion to the degree of development which they have reached at the time of parturition.

7. The intermuscular connective tis-

sue experiences a similar involution in its cellular and fibrillar elements; thus it does not play any active part nor experience hypertrophy.

8. The increased size and weight of the uterus of a pluripara, compared with that of a nullipara, depends upon a certain permanent increase in the intermuscular connective tissue, which is restored to the tenseness, density and elasticity of the virgin state; and it also depends upon a certain permanent enlargement of the muscle fibers. If there is also, during pregnancy, a new formation of muscular fibers, and this has not yet been positively demonstrated, the greater volume of the pluriparous uterus would then be explained by the absolute increase in the number of those fibers.

9. Post-partum subinvolution of the uterus is not an independent disease, but a prolonged and incomplete involution, which is disturbed in its progress, and is dependent upon changes in position, disturbances in the circulation, and inflammations of the uterus and its surroundings.

10. By post-partum atrophy of the uterus is signified a diminution in its size which brings it to the boundary line of the pathological, so that its volume may sink manifestly below that of the normal pluriparous uterus, this being conditioned upon an abnormally great reduction in the muscular fibers and the intermuscular connective tissue, with an anemia of the uterus, the sexual organs in general, or the entire body, as a probable fundamental cause. In physiological cases the nutrition improves, the increase in the volume of the uterus is continued until the normal is again reached, and menstruation returns as a regular and uninterrupted function. In pathological cases the uterus remains permanently atrophic



with the continuance of oligomenorrhea or amenorrhea.

11. In cases in which the fetus dies, involution of the uterus begins before the fetus is delivered. In cases in which delivery is impossible (as in the case which has been cited in which there was pregnancy in a rudimentary horn of a bicornate uterus), all degrees of puerperal involution can be perfectly accomplished, the same as in a normal puerperal uterus.

12. Wounds of the puerperal uterus (such as the wounds made by Cæsarean section and ruptures) heal, under favorable conditions, by first intention, as readily as wounds in other organs.—*Weekly Medical Reporter.*

#### Induction of Premature Labor.

IN a lecture on this subject (*N. Y. Medical Journal*), Dr. WM. M. POLK said, that this operation was much more common than formerly. In former times it was thought that the mother's life should not be considered so long as she could be delivered of a living child; and in France and some other countries this rule still holds good. In this and in most other civilized countries the mother's life is considered of greater value than that of the child.

He enumerated many of the causes which tend to threaten the life of the mother, most of them by producing extreme exhaustion.

Dr. Polk advises that consultation be obtained in every case, where it is possible before determining such an important question. He gave the following rules as to the length of time one can wait.

If you have a woman with a pelvis only two inches and three-quarters in diameter antero-posteriorly, you should induce premature labor at the seventh month. If you have a conjugate diam-

eter of three inches, you can put off the induction of premature labor to the thirty-third week; if the diameter is three inches and a quarter, you may wait till the thirty-fourth or even the thirty-sixth week; and if the diameter is three inches and a half or over, I think you can safely let the pregnancy go on to term, and the chances are that by performing version you will then be able to extract the child alive. These are the general rules for determining the best time to induce premature labor in cases of deformity of the pelvis; but when the deformity is not in the bony structures but in the soft parts, remember that the impeding mass will now bear a certain amount of compression, and so in estimating the diameter of the outlet you should introduce your hand into the vagina and compress the swelling as much as you can, and then measure the distance between it and the opposite wall of the pelvis while you keep up the pressure on the tumor.

In regard to Bright's disease as a complication, he says, the development of edema of the lungs in connection with convulsions of albuminuria is a complication from which few escape with their lives.

In those cases in which pregnancy is complicated with kidney disease, the physician is brought face to face with one of the greatest responsibilities that he is ever called upon to bear, in determining the exact danger to which his patient is subject. He says so long as the patient is passing plenty of water and the specific gravity remains high, even though it contains a very large amount of albumen, if she does not complain of persistent headache, she is doing well enough and by well directed therapeutic measures she may be brought through to full term.—*Weekly Medical Review.*

## DISEASES OF WOMEN.

## Some Points Affecting the Mortality of Abdominal Section.

DR. MEREDITH (*Lancet*):

The purpose of the paper was to draw attention to certain points affecting the present death rate after abdominal section, and with this view operations for ovarian growths were chosen as being to some extent representative of the entire subject under consideration. As a basis for the inquiry, the results of the author's own work in this connection, amounting to 126 operations, were examined with regard to the chief causes influencing the mortality, special reference being made to the ten deaths which occurred in the series of 104 completed ovariectomies. All the operations were performed with strict antiseptic precautions, including the use of the carbolyzed spray.

He was now less inclined than formerly to look upon the latter as an absolute essential to the safeguards of antiseptic abdominal surgery, but he still considered it valuable as the most convenient and effectual means of antiseptic irrigation at our disposal when dealing with the peritoneal cavity. Both ovaries were removed in seventeen cases, two of which terminated fatally, but in neither instance was the result in any way attributable to the removal of the second ovary. Complete enucleation was performed in five cases, all successful, the resulting rent in the broad ligament being closed by means of a continuous silk suture. He advocated the use of drainage tube in all cases of ruptured or inflamed cysts, in any case where irritating or septic fluid had escaped into the peritoneum, in all operations complicated by serious injury to bowel or urinary bladder, in every instance where washing out had been

resorted to, and in all cases of severe operation in middle-aged or elderly women. For washing out the peritoneum where necessary, he advocated the use of plain, recently boiled water, cooled as required by the addition of a saturated solution of boric acid.

Discussing the mortality, he was inclined to believe that in large series of cases the average death rate would never be less than 5 or 6 per cent. Of the ten deaths in his series, two were from septicæmia, one from intestinal obstruction, one from hemorrhage, one from dysenteric diarrhea, two from chest complications, and three from exhaustion; three of these deaths were from preventable causes. Twelve successful operations for the removal of diseased uterine appendages were next reviewed. In seven patients in whom both appendages were removed, complete arrest of menstruation followed. He had found that in cases of chronic ovarian mischief about 90 per cent. were the subject of obstinate constipation, and in them tonic purgative treatment, by lessening pelvic congestion and preventing the formation of scybala, was followed by marked relief of symptoms. Included in a series of ten exploratory operations were two incomplete ovariectomies. Both patients had been tapped, and the death of one was directly due to the difficulties encountered in the attempt to separate universal adhesions which had resulted from this treatment.

In conclusion, it was shown that the increased success of abdominal section for ovarian disease during the past ten years was chiefly attributable to the diminution in the number of deaths from septicæmia. For purposes of comparison he took three successive groups of operations, which represented three separate periods during the last

twelve years, and gave their average death rate from septicæmia alone. In 100 consecutive cases taken from Sir Spencer Wells' work, when the clamp was used and before the employment of antiseptics, the mortality was ten, or one to every ten patients. In 150 cases recorded by Mr. Thornton in the 64th volume of the "Medical and Chirurgical Transactions," which were treated antiseptically and with intra-peritoneal ligature of the pedicle, there were five deaths, or one to every thirty patients. In his own series of 104 cases there were two deaths, or one to every fifty-two patients. The chief factors which had contributed to this increased success, he thought, were as follows :

1. The general adoption of the intra-peritoneal treatment of the ovarian pedicle.

2. The application of the antiseptic system to abdominal surgery.

3. The gradual abandonment of the practice of tapping abdominal cysts.

4. The increase in our knowledge respecting the proper use and management of the drainage tube.

5. The recent introduction of the plan of freely washing out the peritoneal cavity in cases complicated by the extravasation of blood or other fluid.

#### **Influence of Removal of the Uterine Appendages on the Sexual Appetite.**

ONE of the results of scientific progress is the almost daily overthrow of traditional opinions and the substitution of facts for theories. At one time the removal of the ovaries and testicles, it was held, destroyed all sexual feeling in the sex thus deprived of these organs. It is now known that such is far from being the invariable fact, and that so many exceptions occur as to destroy the popular belief upon this subject. Mr. Tait, whose opinions should carry weight, on

account of his extremely large and varied experience, read a paper at a recent meeting of the British Gynecological Society, in which he pointed out the fact that the uterine appendages had as little to do with the sexual appetite in woman as the front teeth. He had seen a number of cases of women whose ovaries had been removed while they were yet virgins, and in whom no lack of the sexual appetite was experienced. Still, quite as remarkable was the evidence he had obtained from three virgins in whom the uterus, ovaries and tubes were removed without an influence upon the sexual desire. He argued that in man the sexual appetite has not its seat in the testicles, and in the woman not in the ovaries, tubes and uterus. He could find no facts to support the generally accepted view upon this subject, and believed it was based upon a false analogy.

The sense of mutilation, which many young women have experienced after the removal of their ovaries, is probably based upon a misconception of the function of the ovaries. Many such cases are practically sterile before a removal of these organs has been undertaken, and they are thus deprived of organs which have no sexual value.—*Maryland Medical Journal*.

#### **Does the Menstrual Flow Originate in the Tubes ?**

DR. E. J. CHAPIN MINARD, of Brooklyn, gave in this paper a description of a case of inversion of the uterus where a dark, healthy flow, but without epithelia, had come from the tubes, which were under direct observation. The uterus had, during the whole epoch, been congested and bright red, but at no time moist enough to stain a piece of paper rubbed over its surface. The tubes were dilated at their openings.

Judging from the anatomical make-up of the womb and from various clinical facts, she was convinced that this was the natural order of things, and that, while epithelium and *débris* of decidual origin were washed away, no blood escaped from the uterine wall. Sometimes when, in doing Battey's operation, the surgeon failed to remove the tubes close up to the uterus, menstruation had continued, although no ovaries remained.—*N. Y. Medical Journal*.

#### The Action of Antipyrin in Menstrual Colic.

THE well-known reflex inhibitory action of antipyrin, as determined by Demme and Sée, led WINDELSCHMIDT (*Medicinisch-Chirurgische Rundschau*) to employ antipyrin by means of enemas of 30 grains in severe cases of cramp and colic during menstruation. It is stated that it proved to be an excellent sedative in such cases, its action ordinarily occurring within half an hour, although in some cases the injection had to be repeated after twelve hours. In two cases especially referred to, where, after nearly every very well known method of treatment had failed to prevent most violent pains and colic lasting through the entire eight days of menstruation, injections of antipyrin in the morning and evening produced the most wonderful success; ordinarily this relief was accompanied by narcotic effects, the patients falling asleep and waking entirely free from pain; no unfavorable action, with the exception of profuse sweating and frequently slight ischuria, were ever observed. For prevention of collapse a glass of wine is administered.—*Therapeutic Gazette*.

#### Abdomino-Vaginal Complete Hysterectomy for Uterine Fibroids.

PRIOR to operation on a case of fibroids of the uterus recently, Mr.

REEVES stated that he intended to adopt a new plan which had occurred to him, provided that the relations of the growth permitted it. If, on opening the abdomen, the tumor proved to be an ordinary form of fibroid involving the fundus and body, and did not extend too far laterally into the broad ligaments, he intended to tie these on either side in two interlocked ligatures, including the upper two-thirds of these structures, and, after applying pressure-forceps to their uterine side, to divide between. Then the peritoneal folds attaching the growth to the bladder and rectum would be divided well up on the tumor, so as to form flaps in the pelvic floor when the growth was removed. The ureters, bladder and rectum would then be cleared from the cervix until the vaginal mucous membrane was nearly reached, when the vaginal part of the operation would begin. This consists in separating the mucous membrane, as in vaginal hysterectomy. The uterine arteries would be compressed with forceps, to be left on or tied, according to circumstances, and the uterus removed entire. The pelvis would be cleansed, the serous flaps placed in apposition, or stitched together if thought desirable, and a drainage-tube inserted *per vaginam*. The subsequent treatment would be as for vaginal hysterectomy. Mr. Reeves explained that his object in combining these plans was to do away with the uterine stump and its disadvantages, such as secondary hemorrhage, septicæmia, dragging on the bladder and rectum, and occasionally the risk of its slipping into the abdomen and causing peritonitis. The combined operation should occupy less time than supra-vaginal hysterectomy with external treatment of the stump, as much time is taken up with trimming this and sutur-



ing the peritoneum over it. Seeing that the best results in the supravaginal operation have been obtained by extra-peritoneal treatment of the stump, and that the mortality is still a high one, any practical plan which will reduce the causes of death should be acceptable. The chief of these are hemorrhage, septicæmia and peritonitis. It is believed that this plan will banish all but a possible traumatic peritonitis; and as in vaginal hysterectomy for cancer this has been practically abolished, there is no reason—except, perhaps, the greater size of the growth removed—why the same favorable result should not follow the proposed operation. Complete removal of the fibroid uterus by Freund's method has been done, but the results of his mode of operating have been far from encouraging. The combined plan suggested allows of free drainage and syringing of the pelvic cavity, and offers every element of operative success, while doing away with many drawbacks.—*British Medical Journal*.

#### Peritoneal Adhesions around the Displaced Uterus and Ovaries.

DR. SCHULTZ, in the *Zeitschrift f. Gyn.*:

In most cases of fixation of the retroflexed uterus, the displacement occurs first, the organ being imprisoned in its abnormal position by a subsequent attack of peritonitis. The adhesions can usually be felt by the finger, introduced into the rectum or vagina. In obscure cases the uterine canal may be dilated, and the finger may be introduced into the fundus so as to steady the organ, while the hand over the abdomen is enabled to draw the fundus forward, and thus to estimate the strength of the cicatricial bands. A sound may be substituted for the finger within the rectum, rectal palpation being practised simultaneously. Anesthesia should be

employed if the exact amount of mobility cannot be ascertained without it. The bladder and rectum having been emptied, the patient is placed in the lithotomy position, introduce fore and middle fingers into the rectum, and press them against the retroflexed fundus, at the same time resting the elbow of the corresponding arm upon the knee. If the fundus can be elevated as high as the promontory, it can then be grasped by the fingers of the other hand placed upon the abdomen. The site and extensibility of the adhesions can now be discovered; if these are slight, they will give way under the combined force of the two hands, while if they are broader, they can be separated from the uterus by pressure of the external finger.

Imprisoned ovaries may be freed by pressure made through the rectum; but when they are adherent to the posterior surface of the broad ligament, reposition is impossible. The finger within the rectum explores the surface of the prolapsed organ for a free edge, or an interspace between the ovary and its adhesions. If the latter can be found, the finger tip is gently, but firmly, bored into it, when the adhesions will frequently give way. It may be necessary to repeat the operation before the ovary is completely freed. It must be effected very slowly and cautiously, the operator being especially careful not to make traction or pressure entirely upon the organ itself. He has never observed any unfavorable symptoms following the operation. Absolute rest and ice applications are recommended immediately afterward. The uterus and appendages are kept in their normal position by means of a suitable pessary. The dangers of the operation are not great, provided that a careful diagnosis has been made previously in the manner indicated.—*Arch. of Gynecology*.

**Indications and Method of Perineoplasty.**

O. KÜSTNER attempts to show that every old perineal rupture, even the smallest, should be healed by perineoplasty, as even small cicatrices of perineal tears cause trouble. Besides the troubles caused by prolapse of the vagina and retroflexions, must also be considered neuralgic symptoms, pruritus, intertrigo, and pains in the cicatrix during coition and defæcation, as well as nervous symptoms, often of a severe nature, and severe pains in consequence of stretching or tearing of old parametric adhesions by the vaginal prolapse.

Küstner compares the different operations for incomplete perineal rupture. He distinguishes between the double pointed operation of Hewitt, Freund, Martin and Bischoff, and the bilateral-symmetrical operation (Simon-Hegar, Winckel). By the first the perineum is rendered most resistant. He thinks that the median rupture should be operated on by the bilateral-symmetrical, the typical forked tear by the other method. For complete rupture Küstner regards the double-pointed method as the only natural one.

In regard to the technique of the operation, the first care must be given to an antiseptic method of freshening and to an antiseptic suture material. For the latter he recommends silver wire and silk-worm gut, as they do not act as drains. The sutures should be so placed that there is no dead space. It is best to embrace from the vagina about  $\frac{2}{3}$ , and from the rectum about  $\frac{1}{3}$  of the depth of the recto-vaginal septum. Vaginal and rectal syringings after the operation are injurious. In 36 operations he has used a 20 per cent. solution of cocaine for anæsthesia, 20 times with good, and 8 times with perfect results. The flaps are made with a half-dull scalpel. The two points are

united by a continuous suture, and button sutures are placed in the vestibule, rectum, and on the perineum. The patients are kept quiet for 14 days. Küstner thinks that by this method the cures should be 99 or 100 per cent.—*Centraltb. für Chirurgie.*

**Menstrual Bleeding from a Laparotomy Scar.**

AT a recent meeting of the Kiev Obstetrical and Gynecological Society, Professor George E. REIN showed a menstruating woman from whom he had about three years before removed a cyst of the right ovary weighing thirty-seven pounds, fixing the pedicle in the abdominal wound. The patient soon recovered, and the wound healed, but at one part of the scar there remained a diminutive slough, which fell off just before the beginning of menstruation, its separation being followed by a constant flow of blood from the denuded surface during the whole catamenial period. The phenomenon has regularly occurred monthly ever since. As a rule, the scar begins to bleed somewhat earlier than the uterine flow makes its appearance. The menstrual blood from the cicatrix has a characteristic odor. It is difficult to explain such an occurrence. Possibly a fallopian tube or one of the uterine cornua had been stitched together with the pedicle into the abdominal wound. However, Professor Rein hopes soon to ascertain the nature of this interesting and rare case, since the patient must undergo a second laparotomy for disease of the left ovary.—*British Med. Journal.*

**DISEASES OF CHILDREN.****Oxygen in the Capillary Bronchitis of Children.**

DR. SINAINSKI (*Russkaya Meditsina; Lancet*) gives some notes of a case of capillary bronchitis in a child a year

and a half old, which seemed likely to prove fatal, where oxygen exerted a rapid and beneficial effect, resulting in complete recovery. Hot baths, ipecacuanha, and emetics of sulphate of zinc, sulphate of copper, and apomorphia had been tried, but the pulse was decreasing, and the child was growing more cyanotic and breathing with more and more difficulty. Three or four inspirations of oxygen produced a marked change, the breathing becoming easier and the cyanosis disappearing. The next day the child presented quite a different aspect. Tonics, expectorants and stimulants were given, and in about four days' time the patient had quite recovered. Dr. Sinainski thinks that in apparently hopeless cases, where there are signs that the blood is not sufficiently oxygenated, the inhalation of oxygen presents us with the means of obviating the danger arising from that source, and in that way of perhaps saving the patient's life.—*New York Med. Journal*.

#### Investigations with the Dried Substance of Feces.

THE following conclusions resulted (TSCHERNOFF) from investigations with the dried substance of feces regarding its proportion of nitrogen, also concerning the variations of the same in the excrements in relation to nutrition and the different diseases of childhood :

1. The percentage of nitrogen in the feces of healthy children nourished at the breast, as well as of those nourished on cows' or asses' milk, with and without the addition of carbo-hydrates, is nearly constant, though in the latter it is slightly higher than in the former. It is more probable that this condition depends upon the greater facility of assimilation of the woman's milk than upon percentage differences in the constitutive elements of human and animal milk.

2. The percentage of nitrogen in the feces is lessened in disease, this being especially noticeable in the dyspeptic diseases in consequence of the simultaneous excessive discharge of fat. As this disappears in the course of recovery so the percentage of nitrogen in the evacuations increases.

3. When the nutriment is changed the percentage of nitrogen at first becomes greater, this being due in such cases to the fact that metabolism is more perfectly accomplished than it was previously.—*Arch. of Pediatrics*.

#### Tubercular Meningitis Cured with Iodoform Ointment.

FIVE cases of this disease were subjected to treatment of the kind mentioned in the title of the author's paper, and with gratifying results. Whatever errors there may have been in diagnosis, the author thinks it hardly possible that he could have erred in all five cases, though he admits that a differential diagnosis between tubercular meningitis and the less grave variety, during life, is very difficult. In all of the cases reported the plan of treatment consisted in first shaving the hairy scalp and then rubbing in upon the skin a quantity of ointment composed of one part iodoform to five of vaseline, the head being then covered with a tarlatan hood with an opening for the face. At each daily friction two grams of this ointment were used, and the treatment was continued from nine to thirty-two days. Moleschott first advised the use of iodoform for internal diseases in 1878, and he successfully treated three out of five cases of tubercular meningitis by applications of iodoform collodion to the scalp. Nillscez and Souders have also each reported a successful case of this disease treated in the same manner.

The author offers the following sug-

gestions based upon his experience in this connection:

1. Iodoform which does not contain less than 96.7 per cent. of acid is nearly insoluble in water and in blood serum, and cannot penetrate the animal economy except through the medium of fatty substances with which it may be combined.

2. It is probable that when it is applied by friction it is received into the subcutaneous adipose tissue, which acts as a vehicle to its transmission. According to Binz, it is broken up, with the liberation of iodine, and this is absorbed and carried along by means of the organic fluids.

3. The iodine, in such cases, will act upon the protoplasm of the cells, both developing and destroying it.

4. This explanation will apply in regard to the treatment of tubercular meningitis by iodoform inunction; in accordance with which the free iodine would be carried by the lymphatics to the surface of the brain.

5. Whatever value be attached to any particular method of rubbing in the iodoform in tubercular meningitis in children, it would seem as if the subject were worthy of the serious attention of the profession.

6. Future experience may show that more rapid results may be obtained by some modification of this method than have thus far been reported. On the other hand, the prolonged use of iodoform is not followed by any accident.—*Arch. of Pediatrics.*

#### Causes of Cholera Infantum.

THE medical journals are full of articles giving the results of the latest observations as to the cause of cholera infantum and other disturbances of the digestive apparatus of infants, all of which have now been proven not to be

inflammatory, as has heretofore been thought, but a condition of poisoning, and therefore the usual remedies which have always been employed, containing opium, alkalies and astringents, are not only ineffective, but positively harmful.

These late discoveries have shown that nearly all the stomach and bowel complaints of infants are due to poisonous substances developed in the food supplied to artificially fed infants, and these poisonous substances are caused by atmospheric germs. High temperature and vitiated air are the conditions favorable for the development of bacteria, and when the latter gain access to the alimentary canal they interfere with normal digestion, and by their growth give rise to leucomaines, which are a cause of acute poisoning. The watery movements from the bowel are the result of the effort on the part of the system to get rid of the poison, and little is to be gained by locking up these irritating products in the intestine. The rational treatment consists in removing the contaminated contents of the bowel, arresting the further development of bacteria, and securing a pure food supply for the future.

It is clear, then, that with proper precautions regarding the purity of the food supplied for young infants, all these troubles may be avoided.

The method at present in favor for insuring the freedom of milk from disease germs is the subjection of it in closed vessels to a temperature of 260° F. It is found that, when thus treated, cow's milk becomes not only aseptic, but the effect of this degree of heat is to render it more easy of digestion. The casein, instead of forming a hard curd, with difficulty soluble in the intestinal secretions of the infant, forms flocculent curds, more nearly resembling those of human milk.



Of the numerous infant foods offered for sale those coming nearest to this standard are best.—*American Analyst*.

#### Intussusception Treated by Inflation of Air.—Recovery.

AT six A. M. the child, an infant of fifteen months, was noticed to be in great pain; from that time until three P. M. there were passages of blood almost hourly, with severe straining. Examination showed a tumor in the rectum, of "unmistakable shape." A tumor was felt externally in the position of the sigmoid flexure.

Sixteen hours after the first symptoms were seen the child was chloroformed, and the rectum gradually distended with air by a Higginson's syringe. The tumor could be felt, externally, to move up the colon as far as the hepatic flexure, but further than this it was not distinguishable. Manipulation was kept up during the inflation. The whole abdomen being now tympanitic, the air was allowed to escape. Tr. opii, ℥i, was given every four hours. This was discontinued after thirty-six hours, no further symptoms existing. On the third day there was a normal fecal movement.

The writer states that the ease of reduction was undoubtedly due to the early diagnosis, the importance of which he very justly emphasizes. This is the third successive case treated in the same manner with equally gratifying results.—*Lancet*.—*Archives Pediatrics*.

#### Vomiting of Cholera Infantum.

WE find in an exchange the following prescription for vomiting of cholera infantum: R. Bismuth. subnitrat., gr. v; mucilag. acaciæ, f 3 ss; acid. carbol. gr.  $\frac{1}{12}$ ; tinct. opii deodorat., gtt. j; mistur. cretæ, f 3 iss. M. This dose to be taken every two hours by a child one to two years of age.

#### Condensed Milk in Infant Feeding.

DR. CHARLES W. DREW concludes an article on condensed milk in infant feeding in the *Northwestern Lancet*, with the following words:

The question therefore presents itself to the conservative physician and to the mother and nurse, whether there is in any ordinary case sufficient advantage in the use of condensed milk as an infant food, to warrant them in assuming the risk of continuously administering as a substitute for mother's milk a mixture containing thirteen per cent. of its weight of such an undesirable and possibly deleterious constituent as cane sugar, as they must do if the condensed milk is simply diluted to the point of furnishing the proper percentage of fat, casein and salts which experience has proved to be necessary for the growth and development of the child. It is impossible for a single logical argument to be adduced in support of such a proceeding, and it must be concluded that from all the evidence attainable by a full study of the chemistry of the subject, that the use of condensed milk in infant feeding is unwarranted, and should be disapproved and discouraged by all conservative physicians.

#### Cocaine in Dentition.

M. VIGUIER has proposed the following to relieve the pain which children suffer when cutting their teeth, especially the canine teeth. R.—Cocaine hydrochlorate, gr. 2; syrup simp., 3 2½; tinct. saffron, gtt. 10.—M. Sig.—Rub the painful parts of the gums many times a day.—*La Clinique*.—*La Gazette Méd.*

#### Infantile Leucorrhœa.

DR. A. REEVES JACKSON (*St. Louis Medical and Surgical Journal*):

This little girl is eight years of age. About two weeks ago, there was noticed

for the first time a discharge from her genitals. It was thin, yellowish, and produced excoriation of the labia. Attention was called to her condition by the fact that the child was observed to scream with pain whenever she passed urine, and would at the same time carry her hands to the parts. On examination of the latter by her guardian the external genitals were seen to be red, and the discharge was oozing from within. Portions of the latter were also smeared upon the child's clothing.

Now, as I expose the parts you may notice the patchy redness of the skin about the lower parts of the vulva, and extending almost to the anus. As I separate the labia, the redness within their border is seen to be still more intense and to cover their entire inner surface, and also that of the vestibule and the urinary meatus. This is what is termed infantile leucorrhœa and, inasmuch as it differs in some respects from the disorder as it occurs in adults, I desire to call your attention to its peculiarities.

Although termed infantile because it frequently is seen in children three or four years of age or even younger, it may present its peculiar features when its subjects have attained the age of twelve or thirteen. It differs from the leucorrhœa of adolescence or maturity especially in two respects—namely, first, in the character of the discharge; and, second, in its locality. The discharge is serous, or purulent, or composed of a mixture of serum and pus, and its seat is the vulva. The leucorrhœas of the adult consist very largely of mucus and vaginal epithelium with more or less admixture of sebaceous matter; but the vulvar mucous and sebaceous follicles are not developed in childhood, and hence these elements are absent from the discharge of infantile

leucorrhœa. Then again, it is rare to find the source of this latter disorder above the hymen.

Very frequently the subjects of this disease are strumous, sometimes the victims of hereditary syphilis, and they are predisposed to it just as they are to certain forms of cutaneous eruption, tuberculosis of the joints, and glandular enlargements. In such children, lack of cleanliness or of proper hygienic surroundings, is sufficient to act as an exciting cause and to induce discharge. The latter is always acrid, and produces at first itching, then pain, and the child's fingers by their scratching and rubbing add to the irritation, and soon inflammation of the skin and mucous membrane is set up or increased.

There seems to be a popular belief that this disease is very frequently the result of attempts at coition, and suspicion is likely to be fastened upon some one, justly or unjustly—usually, I am glad to say, the latter. In such cases, you may be appealed to for your opinion—based, probably, upon that of a prejudiced mother or other relative. Be on your guard. Do not commit yourselves hastily, or you may do some one grave injustice. The courts have held that the existence of leucorrhœa in a child is not even presumptive evidence of any impropriety or crime, and that the latter, if charged, must be proved by other and wholly independent evidence.

Leucorrhœa in children may be a sequel of acute exanthematous diseases, as smallpox, scarlatina, measles. Ascarides have been accused of traveling from the rectum to the vulva, and settling down there to cause itching and make trouble, but I have never caught them doing so. I knew one little girl in whom a severe purulent discharge

was caused by the presence of a half-dozen small pebbles which she had pushed into the vagina.

The treatment is indicated by the pathology of the disease. For cases in which there is evident impairment of or feeble vital power, what is known as general treatment will not only constitute an important, but a necessary, element. Thus, in strumous children, you will need to secure improved digestion and assimilation by the aid, perhaps, of cod-liver oil, iron, cinchona, and still better, if possible, an abundant supply of nutritious food. Another important adjuvant is cleanliness. Usually the subjects of this disease are found with filthy environment, where cleanliness is practically unknown, and a bath for the entire person never taken. But, in addition to these means, local treatment is always necessary. And before this is commenced, a very careful examination of the parts should be made, in order that one may be assured that neither ascarides nor pebbles are present to maintain mischief. In this case, I fail to find any thing of this sort, and, as the child presents an appearance of good general health, and the disease has a short history so far as is known we may conclude that the cause of the latter has been acting only recently. The treatment will be simple; cleanliness must, first of all, be insisted upon. The parts should be carefully cleansed by separating the labia and gently mopping away the secretion with a piece of of absorbent cotton, which may be used dry or moistened with a solution of borax in water—one dram to a pint. Soap is frequently irritating. Then, after drying the surface, a small pledget of cotton covered with vaseline and freely sprinkled with boracic acid and should be placed between the labia. Instead of boracic acid, iodoform, or

subnitrate of bismuth, or powdered borax may be used. The cleansing and the renewal of the dressing ought to be done two or three times daily. The objects of this treatment are to soothe the affected surfaces, to absorb the discharge, to prevent the possible adhesion of opposing abraded surfaces, and to protect them somewhat from the access of atmospheric air, the latter being sometimes a source of pain. Under this treatment assiduously conducted, I would expect this little patient to be well in eight or ten days.

#### Whooping-Cough.

THE writer has been having good results in quite a series of cases of whooping-cough from the following prescription: *R.* Antipyrin, gr. xxx; potass. bromid., 3j; syr. tolu, ʒ iss; aquæ, q. s. ad., ʒ iij. *M. Sig.*—Teaspoonful to a dessertspoonful, according to age, when required, but especially at bedtime.

The ages varied from three to twelve years. The combination is useful in both stages of the affection.—*New Orleans Medical and Surgical Journal.*

#### For Constipation in Infants.

DR. SMITH recommends the following: *R.* Ol. morrhuæ, 20 grams; aquæ calcis, 20 grams; syr. calcis lactophosphatis, 10 grams. *M. Sig.*—One-quarter to one-half teaspoonful after each meal.—*St. Louis Medical and Surgical Journal.*

#### Summer Diarrheas in Children.

DR. J. HARRIS JONES, of Wilkesbarre, Pa., recommends the following prescriptions in the *New York Medical Journal*:

*R.* Pepsinæ puræ, gr. viij-xij; acidi hydrochlorici dil., ʒ lxxij; tinct. opii deodor, ʒ x; syrupi, ʒ iv; aquæ, ad.

℥ iij.—M. Sig.—A teaspoonful every hour or every other hour.

℞. Hydrarg. subchlor., gr.  $\frac{1}{4}$ .

℞. Hydrarg. c. cretæ, gr.  $\frac{1}{2}$ . Sig.—Either of the above to be given dry upon the tongue every two hours.

℞. Acidi nitrici dil., 3 j; acidi carbolicus puræ, gr. iv; tinct. opii deodor, ℥ x; aquæ, ad. ℥ iij.—M. Sig.—One dram every two hours in water.

℞. Bismuthi subnit., gr. xlvij; sp. ammon. co., 3 ij; tinct. opii deodor. ℥ x; misturæ cretæ, ad. ℥ iij.—M. Sig.—One dram every two hours.

#### Infantile Dyspepsia.

℞. ACIDI hydrochlor. dil., 3  $\frac{1}{4}$ ; syr. aurant. cort, 3 i; tinct. aurant. cort, 3 i; infus. cascariillæ, 3 vj.—M. Sig.—Teaspoonful twice a day.—*La Gazette Médicale*.

#### Leucorrhœa in Children.

IN cases of leucorrhœa in children, where injections cannot be used, Professor PARVIN recommended pencils of iodoform (containing three or four grains each), to be introduced into the vagina, or—℞. Argenti nitratis, gr. v; aquæ, f 3 j. M. Sig.—To be dropped between the labia.

#### The Condition of the Fetal Blood at the Time of Birth.

THE views which have been heretofore advanced upon this subject are as follows:

1. Coagulation of fetal blood is incomplete.

2. Fetal blood is poor in fibrin, compared with maternal blood.

3. The quantity of hæmoglobin in fetal blood varies at different stages of development. At the end of pregnancy it is about the same as in the maternal blood, but it is always less than in the blood of a new-born infant a short time after birth.

4. The quantity of solid constituents in fetal blood is greater than in the maternal.

Krüger's investigations showed that—

1. The increase of solid constituents in fetal blood as compared with that in the maternal blood is insignificant.

2. The quantity of fibrin in the fetal blood is decidedly diminished at the moment of birth, and tends to diminish subsequently.

3. The quantity of hæmoglobin in fetal blood at the moment of birth is about the same as in the maternal blood, but is never so great as in the new-born infant.

4. The sex of the fetus has little or no influence upon the composition of the blood; the same is true with respect to the weight of the fetus.

5. Fetal blood coagulates at once at the moment of birth, but the clot is a long time in forming, owing to the want of readiness with which the white corpuscles are broken up; and it is from these that the fibrin ferment is developed. *Arch. Pediatrics*.

#### Incontinence of Urine in Children.

DR. J. E. CLARK, one of Brooklyn's most celebrated physicians, and President of the Medical Board of St. Peter's Hospital, stated to us recently, that he had been almost universally successful in treating this unfortunate malady by dilating, once in a while, the urethral canal with the ordinary sound. Our experience has convinced us of the value of this method.

#### 'Age, Sex, and Season in Relation to Scarlet Fever.

EPIDEMIOLOGICAL Society of London, (*British Medical Journal*):

The paper gives an analysis of upwards of six thousand cases. It shows that the liability to scarlet fever is slight



in infancy, reaches its maximum in the fourth or fifth year, and diminishes every year afterwards. The severity of attack is greater in the first two years, and lessens year by year afterwards.

Females are more liable to attacks than males; but the attacks in males are more severe, and the death rate consequently higher. The scarlet fever death-rate reaches its maximum in the third year of life in both sexes.

The advantage of postponing an attack is twofold: each year of life beyond the fifth diminishes the susceptibility, and lessens the average severity of attack should it occur. As regards season, the maximum of cases and of deaths occur in October, and the minimum in April. It is probable that a scanty rainfall is favorable to the spread of the disease.

Besides the seasonal curve it is possible to construct a weekly curve, showing the number of attacks on each day in the week. The results indicate a marked reduction in the number of attacks on Wednesdays, presumably due to less facility for infection on Sunday,

Infection from a previous case is the most obvious explanation of many cases of human scarlet fever, and may be true of all, or nearly all; but it cannot be the whole truth. Some further explanation is needed to account for the well marked seasonal and other variations in the prevalence of the disease.—*Ibid.*

#### Convulsions in Children, with Special Reference to Etiology and Treatment.

DR. C. L. DODGE of Kingston, N. Y., in an able article recently published in the *Medical and Surgical Reporter*, gives the following interesting therapeutic summary:

In all young children in whom brain disease, acute fever or dentition can

be excluded as exciting causes, an emetic should be given. The physician should not be satisfied with a teaspoonful of syrup of ipecac, but should give ten drops of fluid extract of ipecac, or ten grains of the powdered ipecac in half a wineglassful of warm water, and repeat in fifteen minutes if necessary. When the child is past swallowing I would suggest the use of apomorphine hypodermically. If the emetic acts promptly in removing the offending substance, the convulsions in most cases will be arrested, and will not recur. An emetic has some peculiar effect in controlling the spasmodic movements, probably through muscular relaxation, apart from the mere removal of irritating substances from the stomach. If there is reason to suspect that a portion of the indigestible matter has passed into the bowels, an enema of soap and water will usually produce a free and speedy evacuation, and will often disclose the cause of the spasms by the expulsion of seeds and half-digested fruit, which the child has eaten. If the enema fails it is good practice to administer a cathartic, and calomel is one of the best; it is easily taken dry with a little sugar. Castor oil is preferred by some in very young and feeble children. These measures should be followed by full doses, in proportion to the age, of bromide of sodium, which is very much more acceptable to a weak and irritable stomach than bromide of potassium. I have found this to be true on several occasions, and decidedly prefer the sodium salt in these cases. If the convulsions do not cease by the use of the above measures, chloroform should be given by inhalation; it will arrest convulsions when nothing else will, and usually very little is required. I have seen the convulsions cease as soon as the child became anæsthetized,

and they have not returned. It should be used only during the convulsion and withheld as soon as the spasmodic movements cease. I have never seen any untoward results follow its use, in cases of this kind. Chloral is also highly spoken of, but I have not had much experience with this drug.

The use of opium in this as in many other diseases of children has given rise to much discussion; the teaching of the late Dr. Beek, never to give opium to children under four or five years of age, has deterred many from using this valuable remedy. Modern writers on diseases of children do not prohibit the use of opium. It is not so very many years ago that opium was held to be contra-indicated in bronchitis and pneumonia. There can be no doubt of its good effect in certain cases, especially when the child seems to be in pain, or when diarrheal troubles show the cause to be in the intestines.

With reference to the use of the hot bath, I am inclined to think that its use should be somewhat restricted; that is, I would not recommend it as a routine treatment, especially when it is to be left to the parents or friends to make use of. It is held by some that the child is liable to have one or more convulsions while in the bath, and that the agitation incident to the giving of the bath adds to the excitement of an already disturbed nervous system. The great object in treatment is to keep the nervous system as free as possible from agitation. The force of this objection is lost if the child be unconscious, and the hot bath is often a valuable means of inducing muscular relaxation sufficient to enable the child to swallow. I am convinced that it is often productive of more harm than good, when in the excitement of the moment the water is too hot or too cold; the child is fre-

quently kept in the bath after the water becomes cold, thereby inducing a chill, which adds to the cerebral congestion already present. When given under the supervision of a physician in appropriate cases I believe it to be a beneficial agent. Putting the feet into hot mustard water can certainly be productive of no harm. It should be continued from five to twenty minutes according to the severity and duration of the attack, cold applications being made to the head at the same time.

In convulsions arising from dentition, chloroform is the best remedy to arrest the spasm, after which, if the gums be swollen and hot, and the child is feverish, scarification is proper, followed by a mixture of bromide of sodium and opium in the form of paregoric. This is the form of eclampsia in which opium in small doses combined with the bromide is especially indicated. What is the condition in these cases? There is pain—intense, sometimes, for an infant—combined with nervous excitement. What treatment could be more rational than anodynes and nerve sedatives? And clinical experience proves this to be correct reasoning. Some prefer chloral with the bromides, but I think this combination more appropriate in cases in which the convulsions continue if chloroform is not used. The immense doses of morphine used in uræmic and puerperal convulsions would seem to disprove the alleged dangers attending its use.

When the convulsion occurs at the commencement of an eruptive fever or pneumonia, no special treatment is required, beyond the addition of bromide to the treatment appropriate to the fever. If it occurs later and the eruption has receded, it becomes a serious complication, active revulsive measures—hot mustard baths—are necessary.

In dysentery or internal inflammations, counter-irritants over the abdomen, with full doses of opium in proportion to the age, and the bromides are proper. When due to malarial poisoning the convulsion should be arrested by the usual means, after which calomel, castor oil and quinine should be given to prevent its recurrence. If the child appears cold and chilly after the convulsion, opium in some form should be given till the quinine has time to have its effect. *Veratrum viride* I have had no experience with.

In cases due to cerebral congestion, if an active purge is indicated, it is often better to give an enema at once. External derivative agents are also indicated, such as a warm mustard foot bath followed by sinapisms to the back of the neck, feet, and calves of the legs, with cold applications to the head; and the bromides internally. In passive congestion the disease is not primary, but dependent upon some antecedent condition, such as whooping cough, when the treatment appropriate to that disease should be instituted. In cerebral hemorrhage, very little can be done. Cold applications to the head, mustard to the back of the neck and legs with prompt purgation are the most that can be done. Some advocate leeches to the temples if congestion is marked. Bromides may also be given.

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### OBSTETRICS.

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#### Electricity in the Vomiting of Pregnancy.

DR. GÜNTHER, of Montreux (*Lancet*), mentions, in a gynecological journal, five cases of the vomiting of pregnancy in which he found electricity of the greatest service. In none of the cases could any pathological condition of the uterus or its appendages be detected.

Four of the cases were primiparæ. The remaining case was that of a woman who had had two confinements previously; in her first pregnancy she had suffered from sickness, but not in her second; in the earlier months of the latter, however, she had suffered from severe pruritus of the thighs. Some improvement only was obtainable by regulating the diet, but this was not of any long duration. Narcotics, too, had only a temporary effect. In the absence of pathological indications, we must seek for the explanation of the vomiting in the reflex action between the uterine and gastric nervous supplies, just as the tonsils are enlarged in asthma because of the relation between the cranial and gastric nerves. The female genital organs may be considered as related to other parts of the body from a vaso-motor point of view, and the occurrence of vomiting is probably sometimes to be explained from a consideration of that circumstance. In severe cases a definite degree of sensitiveness is present, and Dr. Günther believes that there is a functional neuralgia of a reflex nature. He applied the anode of a constant current in the form of a sponge, in a metal case covered with rubber, to the cervix. The cathode was a plate about four inches by five inches. This was applied over the spine, between the eighth and twelfth dorsal vertebræ. It is important to see that the current is not intermittent, and to use only one of a low strength. He commenced with two and a half to three milliampères, and never increased the strength higher than five milliampères. Each sitting lasted from seven to ten minutes. The vomiting ceased in four days, at the most, in all the cases.

As some degree of nausea remained, the treatment was continued for some weeks.—*N. Y. Medical Journal*.

### Vomiting of Pregnancy.

IN connection with the case of a pregnant woman who suffered with uncontrollable vomiting, but who refused to have abortion induced, and died within twenty-five days, JAFFE, of Frankfort, makes some remarks upon hyperemesis gravidarum (*Volkmann's Sammlung klinischer Vorträge*). He divides the vomiting of pregnancy into three classes. In the first, vomiting occurs only in the morning on an empty stomach; this is the most frequent form, and the prognosis of it is good. In the second, which is not rare, vomiting occurs in the morning and also during the day after taking food, though only a part of the food is vomited. In this form the appetite is good, and the nutrition is not altered. With the occurrence of the movements of the fetus the vomiting disappears. The third form, uncontrollable vomiting, is rare. It begins with the occurrence of conception, or first appears later. It is undecided whether it is more frequent in primiparæ or in multiparæ. The etiology is not known. If the affection is called a reflex neurosis, still this is only a definition that says nothing. The course of the disease exhibits three stages. In the first stage all nourishment is rejected; there is no fever, but thirst, pain in the epigastrium, salivation, and often constipation and anæmia, together with emaciation. In the second stage there is slight fever, the tongue is dry, and there is pain in the epigastrium. The expired air is foul-smelling, the urine is concentrated and contains albumen and casts, which are the result of a nephritis produced by the inanition. The emaciation and the failure of strength increase. In the third stage high fever persists, delirium occurs, the patient sinks into a sleepy condition, and dies.

The diagnosis presents no difficulty. In the differential diagnosis diseases of the stomach and neurosis are to be considered. The prognosis is very uncertain; it is influenced both by the period in which the hyperemesis occurs and by the life or death of the fetus.

Treatment by diet and with medicines is generally ineffectual; the best agents are opium and the bromides. If local affections are present, a treatment directed to them is at times effective. If other measures fail, the pregnancy is to be interrupted—but not if the third stage has been entered upon, for in this case the patient is irretrievably lost.—*Wiener Med. Presse.*  
—*Medical and Surgical Reporter.*

### A Case of Tetanoid Constriction of the Uterus.

IN a paper read before the Gynecological and Obstetrical Society of Baltimore, Dr. H. M. Wilson describes the case of a woman of about 24 years of age, whom he saw first four years ago, just after her marriage. She was of fine physique and healthy appearance. Her trouble at that time was uterine neuralgia. Each catamenia was attended by distressing pains, lasting from one to two days. Stenosis was suspected and an examination advised, but she declined this, giving as a reason her great sensitiveness to pain, and her nervous dread of it. Nothing of special note occurred during the two years following, except a small subcutaneous abscess in the right iliac fossa, which was lanced and soon healed. This reappeared in a smaller form—about the size of an almond. At the end of three years, she became pregnant. Her gestation was accomplished without special distress, except on several occasions after moderate exercise she had slight attacks of syncope—the last, about four



days prior to her confinement. Five days before labor, whilst in bed, and without any exertion on her part, her water was discharged. Dr. Wilson was called to see her and found her bright and cheery, free of headache, with pains described as sharp, at intervals of about ten minutes. Upon examination the soft parts were found to be in much better condition than had been feared. The bowels were twice moved; the kidneys acted freely. The os was entirely closed. Upon his return in two hours the os had opened to the size of a dime; the edges were soft and thin, and, as far as could be made out, the head presented in the right occipito-anterior plane. The patient now commenced to complain of nausea to the extent of emesis, which was frequently but not inordinately repeated. The further progress was slow, but did not seem to require either bleeding or medicine. At 5.50 in the afternoon, he deemed the os sufficiently dilatable to admit a careful application of Simpson's forceps, the head being within easy reach. No difficulty was encountered in their adjustment, but in the effort to deliver no advance could be made. Thinking the funis might be abnormally short or tightly wrapped about the neck, he substituted the Tarnier instrument. He could cause the head to appear at the vulva so as to be seen, but it instantly would disengage itself from the blades and fly back to its former position. While he dispatched a messenger for Professor Miltenberger, Dr. Wilson for the first time observed the pallor of the patient, and, putting his finger on her pulse, found it a mere thread. Instantly suspending the anæsthetic, he administered brandy freely by the mouth and requested Dr. Pole, who was quickly at hand, to kindly assist him in repeated hypodermics of

brandy. The patient never rallied, and died within thirty minutes. The fetus was dead, but, seeking for some solution of this terrible and inexplicable result, Dr. Miltenberger effected the post-mortem delivery. Upon introducing his hand he found a band embracing the shoulders, which, to use his own words, "gave the impression of a band of steel." It was only after a prolonged and most persistent effort, and that coupled with the occasional fear that the trial would have to be abandoned, that version was finally accomplished.

Chloroform was used occasionally, in small quantities, for probably an hour, just at the completion of a pain, "to blunt its edge," as the patient expressed it, but not carried to its full effect; indeed more as a placebo. This was thought proper on account of the patient's highly sensitive organization, and to quiet, as far as possible, her urgent demands for relief. When instruments were used chloroform was inhaled freely, but, as before stated, instantly abandoned upon the appearance of dangerous symptoms. She came from under its influence speedily, asking questions, complaining of the strength of the brandy, demanding water, requesting to be fanned, etc.; her intellect remaining unclouded to the last.

The author does not believe that chloroform was the cause of death, and says that he cannot recall an absolutely certain death from its use in obstetrical practice. If such result has happened, it is an exception to the general rule. In this case the patient passed from its influence quickly. As for the forceps, they were applied without difficulty and used with discretion. In nothing did the manipulation differ from their constant and ordinary use. —*Medical and Surgical Reporter.*









